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From the Editor

I remember the first time my PC was destroyed by hidden malware. It happened about 15 years ago, back when I was far too carefree about what I downloaded from the web. I was in the middle of writing a feature, probably about the launch of Windows XP, when my PC went blank. Nothing I did could bring it back to life. In the end, I had to scrap it, and splash out on a brand new machine.

I thought I was safe because I had antivirus installed. But as I've since learnt, no antivirus is perfect. Hackers will always find ways to drill through its defence to plant silent killers on your PC. Read our Cover Feature (p50) to discover what these invisible threats are, and



how you can remove them.

You'll need some light relief after reading that, so because this issue is dated 1 April we've got a little 'guess the hoax' quiz on page 57. Can you spot the three fake news stories we've mischievously created alongside the seven that are bonkers but true?

Daniel Booth

editor@computeractive.co.uk



THIS ISSUE IN NUMBERS

500 years

Age Google thinks it's possible humans can live to - p8



£399

Price someone is selling our Back Issue CD for! - p10

45 hours

Incredible battery life of the Moto E 4G phone - p18

HOW TO USE SNIPCA URLs

We use snipcas to turn long URLs that are hard to type into ones that are short and simple. They aren't websites themselves, which means they won't be recognised if you type them into Google. Instead, you need to type them into your browser address bar, then press Enter. Doing this will take you to the correct website.

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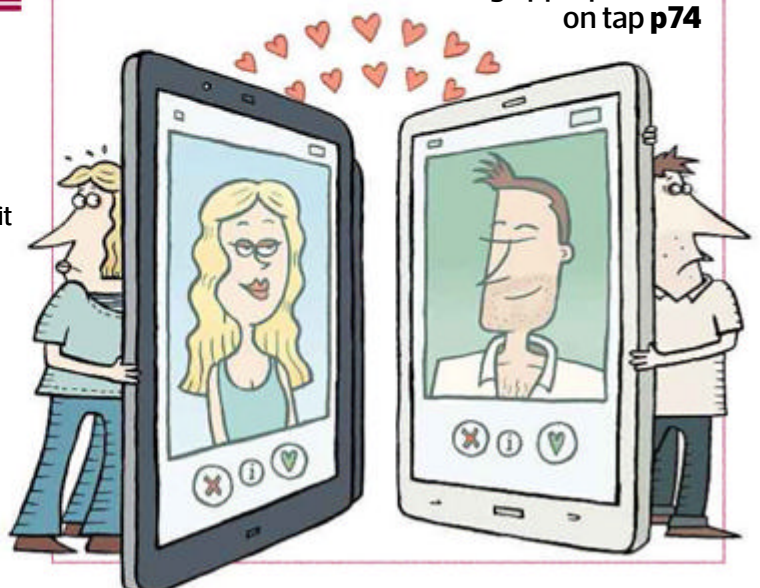
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Kaspersky Internet Security 2015 page 54



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Windows 10 to launch this summer – try new tools now

Microsoft has surprised everyone by announcing that Windows 10 will launch this summer. It had previously been thought that the operating system (OS) would arrive in the autumn.

Writing on a Microsoft blog on 17 March (www.snipca.com/15881) Terry Myerson, the company's head of operating systems, said: "We continue to make great development progress and shared today that Windows 10 will be available this summer in 190 countries and 111 languages".

In the same blog post Myerson revealed that you'll be able to sign into devices running the OS with your eyes, face and fingerprint. This is because Windows 10 will support Windows Hello, Microsoft's new system of authenticating a person's identity through unique physical characteristics, known as biometrics, which is far safer than relying on



passwords. For more information on Windows Hello visit www.snipca.com/15882.

Microsoft also confirmed that it's shelving the Internet Explorer brand that it's used for its web browsers since 1995. Instead, Windows 10 will contain Microsoft's new browser, codenamed Spartan, which has been designed to run on every possible device, from phones to PCs.

However, Spartan was surprisingly omitted from the latest Technical Preview of Windows (Build 10041), which was announced on 18 March. Microsoft developers confirmed on Twitter that

Spartan will appear in the next Windows 10 Preview: www.snipca.com/15886.

Finally, Microsoft said it will release Preview versions of Windows 10 more regularly. You can control how often you receive updates by selecting the Fast or Slow 'ring' within Windows 10's settings.

If you pick fast, you'll receive every update, but these will contain more bugs, so it best suits confident users. If you choose the slow ring, you'll receive less frequent updates, but they will more stable, with fewer flaws.

You can choose which ring you want by clicking the Start menu, Settings, 'Update &

COMMENT

We're excited by the prospect of getting our hands on the final version of Windows 10 before autumn, but we hope Microsoft isn't rushing things to hit an unrealistic deadline. Happily, there's no sign of that. We're wary of tempting fate, but no operating system since XP has looked this good this early. The latest Preview version isn't a huge improvement, and Spartan's absence is disappointing, but three magic words make it worth downloading: 'drag and drop'. Few things make computers easier to use.

recovery', 'Advanced options', then selecting Fast or Slow.

Download the new Preview at www.snipca.com/15888. For more information on what's new see the box below and read Microsoft's blog: www.snipca.com/15883.

WHAT'S NEW IN THE LATEST WINDOWS 10 PREVIEW

START SCREEN

TRANSPARENCY EFFECTS

The Start screen is now transparent, making it look like the menu icons and tiles are floating on top of your Desktop. You can also drag and drop apps



from the All Apps or most used apps list to pin them to the Start menu.

USE CORTANA IN THE UK

Cortana, Microsoft's voice-activated personal assistant, is now available to users in the UK.

Before, you could only use it by changing your location to US.

UPDATED PHOTOS APP

Microsoft has updated the tile for the Photos app to show pictures from your OneDrive account, not just those saved on your PC. It also now supports keyboard shortcuts (tab, arrow,

and page up/down keys).

DRAW AND DROP IN VIRTUAL DESKTOPS

The virtual desktop feature (new in Windows 10) now lets you drag apps and windows to different Desktops. Previously you had to right-click and choose an option.



You'll like this... Terry Pratchett has been immortalised in hidden code that can be added to websites (www.snipca.com/15879)



...but not this High-street shops are still selling Lenovo computers containing the Superfish adware (www.snipca.com/15880)

Beware 'plague' of pension scams once new rules kick in

Financial regulators and Government ministers have warned the over-55s that they are likely to be targeted by pension scams as commenters try to exploit confusion over the new rules.

Pensions minister Steve Webb has predicted a "plague" of scams once the new regulations take effect on 6 April. From that date anyone aged 55 and over will be able to freely withdraw money from their pension pots.



Talking to the *Daily Telegraph*, Webb said that fraudsters are already sending text messages en masse and cold-calling

people, copying the tactic used by companies offering PPI compensation.

"If you are promised a really eye-catching interest rate above what you'd expect, it's almost always too good to be true," he said.

Martin Wheatley, chief executive of the Financial Conduct Authority, said he expected scammers to strike while people were still deciding what to do with their new pension freedoms.

"Scams and fraud, we know, tend to proliferate at the moment of maximum uncertainty," he said.

For more info on pension scams visit the Government website Pension Wise: www.pensionwise.gov.uk.

FIVE THINGS SCAMMERS WILL DO

- 1 Claim to know loopholes that let you access all your pension before you turn 55.
- 2 Offer a free pensions review as a way of earning your trust.
- 3 Say you'll miss out on a "once in a lifetime" deal if you don't sign up straight away.
- 4 Try to dazzle you with incredible returns on your money – up to 10 per cent. You can't get better than the four per cent offered by the NS&I pensioner bonds.
- 5 Advise you to put all your money into one investment.

Finally! Google to check Android apps for malware before they go live

It's now much safer to download apps from Google's Play Store after the company improved how it checks for malware.

In a blog post (www.snipca.com/15862), Eunice Kim, product manager for Google Play, said that for the past several months a "team of experts" has been testing apps for malware and other "policy violations", such as sexual content and copyright infringement.

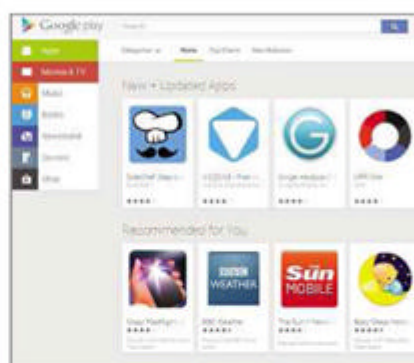
Until now Google has been far more relaxed than Apple about allowing apps to appear on their store. Since the Play Store launched in 2008 (as 'Android Market'), Google has taken a reactive approach to security, removing malicious apps once they've been spotted

rather than testing them first to stop them appearing.

The new system, in which Google analyses apps using software before the review team test them, is similar to how Apple checks apps before approving them.

Google has also introduced age-based ratings for apps and games. From May, app developers will have to complete a questionnaire about their app before submitting it to Google for approval.

They will be asked whether their app contains sexual and violent content, drugs and alcohol, gambling, and other content that should be



age-restricted.

This should help reduce the number of inappropriate apps downloaded by children. Previously, app developers assigned their own age rating.

Google says it will check that developers aren't lying in the questionnaire in order to make their app appear suitable to a wider range of people

IN BRIEF

BT BOTTOM OF BROADBAND SURVEY

BT has come bottom of a customer-satisfaction survey of 11 ISPs conducted by consumer watchdog Which?. BT achieved an overall score of 45 per cent, just below Sky and TalkTalk. Smaller ISPs performed better, with John Lewis, Zen and Utility Warehouse taking the top three places. Which? surveyed customers across a range of different criteria, including connection speed, technical support, customer service and reliability. See the results at www.snipca.com/15850.

BBC NEWS LAUNCHES RESPONSIVE SITE

The BBC has launched a responsive version of its News website. This means that its layout will adapt to better suit the screen of the device – phone, tablet or computer – it's being displayed on, making it much easier to navigate. The site launched as a **beta** in March 2014, and has been tested by 750,000 visitors since December. Read the BBC's Internet Blog for more details: www.snipca.com/15867.

Tomorrow's world

French woman Jeanne Calment, aged 122 when she died in 1997, was the oldest person to have ever lived. But Google's Bill Maris wants to invest in medical companies aiming to extend that record by several centuries. Recently, in a fascinating interview with US business magazine *Bloomberg Markets*, he said it was "possible to live to be 500". Read it at www.snipca.com/15756.

IN BRIEF

BT FINED FOR TEXT-SPEECH DELAYS

Ofcom has fined BT £800,000 for missing the deadline to release a text-to-speech service designed to help people with hearing or speech impairments. Along with all phone operators, BT had until 18 April 2014 to launch a tool that turned typed words into a phone conversation. BT's Next Generation Text Service (<http://ngts.org.uk>) finally launched in September, 2014 following technical problems.

NATIONAL GALLERY BANS SELFIE STICK

The National Gallery has become the latest cultural institution to ban the selfie stick, prompting delight among the many people who regard the device as a modern-day nuisance. The telescopic sticks, which extend to around 1.5 metres, help users take better photos of themselves than can be achieved by holding the phone at arm's length. The British Museum is rumoured to be following suit.

5Mbps broadband should be a legal right, says Government

Demanding access to broadband would become a legal right, under Government proposals announced by George Osborne in the Budget.

The Government wants to introduce rules that let customers force companies to install broadband that can hit speeds of at least 5Mbps, a quarter of the UK average.

They would do this by raising the Universal Service Obligation, which is the legal entitlement a company must provide, from dial-up speeds to 5Mbps. This would be the highest guaranteed speed in Europe, the



Government claims.

The plans were outlined in the Government's digital communications infrastructure strategy, a policy paper published alongside the Budget. You can read it at www.snipca.com/15843.

Osborne also stated in the Budget a "national ambition" for the UK's minimum broadband speed to be an "ultrafast" 100Mbps. The Chancellor said that he was committed to making sure "nearly all homes" in the UK would get this speed, though didn't reveal any further details.


Using 100Mbps broadband you'd be able to download a film in two minutes and an album in eight seconds.

In order to deliver ultrafast broadband to remote areas, Osborne promised to speed up an existing scheme that uses satellite broadband and other advanced

technologies to link rural homes to the internet. He claimed that "wherever you live in Britain you should have ultrafast broadband – and we are going to make it happen".

The Government's current aim is to make superfast broadband, defined as 24Mbps and above, available to 90 per cent of the UK by 2016, increasing to 95 per cent in 2017.

Osborne also announced funds to provide free Wi-Fi in libraries and to boost research into driverless cars.

 Do you think the Government will achieve its ambition of 100Mbps broadband? Please let us know at letters@computeractive.co.uk



BBC hands out one million free computers to schools

Every pupil in Year 7 across the UK will receive a mini computer as part of the BBC's Make It Digital initiative to inspire a new generation of children to develop digital skills such as coding.

Around one million computers, currently named the BBC Micro Bit (pictured right), will be given to schools for 11- to 12-year-olds to use.

The BBC says the device is designed to be a wearable personal computer and be extremely easy to use, letting children start coding on it as soon as they plug it in.

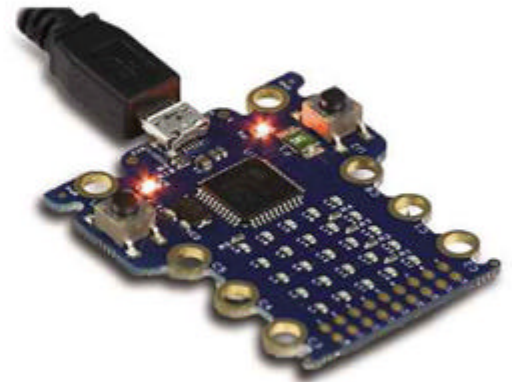
The device will be compatible with the Raspberry Pi, the hugely popular British-made mini computer, rather than act as a replacement for it.

As part of Make It Digital, the BBC will

screen a season of TV programmes promoting digital skills, and encourage kids to play interactive games online, such as 'The Doctor and the Dalek' (www.snipca.com/15829).

The BBC has also teamed up with 50 leading tech businesses and organisations, including Microsoft and the British Computing Society, to run events around the country. In addition, the BBC has formed a partnership with the Government to launch a traineeship to help up to 5,000 young, unemployed people to develop their digital skills. The long-term aim is to fill the 1.4m digital jobs it is estimated the UK will need over the next five years.

Tony Hall, BBC Director-General, said: "Just as we did with the BBC Micro in the



1980s, we want to inspire the digital visionaries of the future. Only the BBC can bring partners together to attempt something this ambitious".

For more information visit www.bbc.co.uk/makeitdigital.

Question of the Fortnight

Will Islamic State hack you next?

Islamic State wants to spread its murderous message across the internet, but not every 'Isis' hack is what it seems

On Sunday 8 March, anyone visiting the website of the Dublin Rape Crisis Centre would have seen the now-familiar black flag of Islamic State plastered across the homepage. It was accompanied by the sinister message 'Hacked by Islamic State (ISIS), We Are Everywhere' (see image).

It was one of many hacks committed that weekend that Isis sympathisers claimed to have carried out. Hundreds of other websites have been hacked in a similar fashion in 2015, though they wouldn't appear to be obvious targets for murderous Islamists. In recent weeks, for example, Isis has targeted the websites of a Tokyo camera shop, a sports club in Yellowknife, Canada, a hotel in New York State, an Italian political party and a quilting museum in Wisconsin. They even hacked the website of the non-League



Essex football club Heybridge Swifts.

Because hackers are targeting obscure websites such as these, can you be sure the site you run for your local club or society isn't also at risk? It would appear it might be. The apparent randomness of these attacks doesn't look like the work of serious

cyber-terrorists, but more like the online equivalents of louts who indiscriminately spray ugly graffiti on buildings.

But are these hackers really supporters of Isis? As the targets become more trivial, security experts are beginning to suspect that the culprits have no affiliation with Isis, but are simply lone hackers out to shock. Limited by

“ordinary hackers have cynically used far-fetched references to Isis as a means of attracting media attention”.

Tellingly, he called these hacks “defacements”, which is an important point.

The hackers don't actually steal personal information or endanger national infrastructure. Instead, their actions are more like acts of cyber-vandalism. Seeing an Isis flag on your homepage is certainly upsetting, but it can easily be removed.

Crucially, many of the websites hacked in March have one thing in common: they are all built on the WordPress

blogging platform. It appears that the hackers exploited the well publicised vulnerabilities in WordPress **plug-ins** (for more information visit www.snipca.com/15793).

Hackers targeted these sites because of a shared security flaw, not because they were symbols of 'the West'.

But if experts question the authenticity of recent attacks on soft targets, there seems little doubt that the hack on 12 January of the US military's Central Command Twitter account was carried out by actual Isis sympathisers. Calling themselves the Cyber Caliphate, they posted sensitive information including personal details of senior US officers. It also seems certain that the attacks on 19,000 French websites following the murders at the *Charlie Hebdo* office on January 7 were carried out by genuine Islamists.

So far, Islamic State's cyber-terrorism hasn't been anywhere near as serious as its barbaric actions in Iraq and Syria. Its aim has been to wage a propaganda war on the sites and accounts of its perceived enemies. Sadly, its success can be measured by the number of copycat hackers now hiding behind the black flag to instill fear and spread hatred.

THE FACTS

- Hackers claiming to represent Islamic State have hacked the websites of many local clubs, organisations and businesses
- They deface the homepage of websites with a black banner containing the words 'Hacked by Islamic State (ISIS), We Are Everywhere'
- Security experts suspect some hackers are shock-seeking opportunists, rather than genuine militants

Letters

Tell us what's on your mind


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Motorists using phones 'should face prison'

 At last somebody has said what millions of us have been thinking for years – ban drivers who use mobile phones. I applaud Chief Constable Suzette Davenport's comments (News, Issue 445), and I hope that as a top-ranking police officer she will have considerable influence. These dangerous miscreants shouldn't just be banned from the roads – they should face the threat of prison.

I hate seeing people using phones at the wheel. I always give them a steely glare, but I'm too scared to bang on their window because they always look like the sort of boorish oaf who would wind it down and punch me.


Gordon Evans

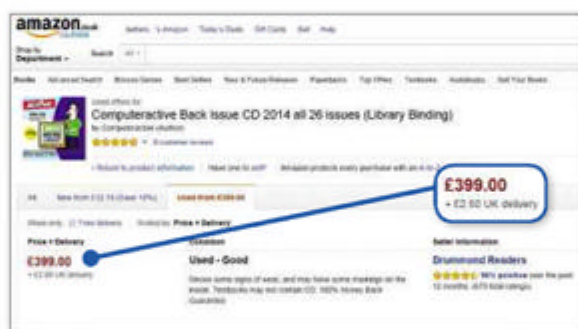
 I have very personal reasons for agreeing with Suzette Davenport, so I hope you don't mind not printing my name. I'll confess that I used to dismiss the dangers of texting while driving. I thought criminalising it was a 'nanny state' law, like banning smoking in pubs. But a couple of years ago, while driving home late at night, I skidded off the road and smashed into a fence. Ok, that happens to a lot of people. But I was to blame because I'd been texting someone. I've always considered myself a safe and confident driver, but clearly I had become complacent. It was a real shock to me, because if it had happened on a motorway or high street I could have killed someone.

So I never, ever use my phone now while driving. But there are still too many people who do. And they will continue to do so until they are made to feel uncomfortable by other people judging them. So yes, drivers should be banned, but we also need a program of education that paints their behaviour as socially unacceptable.

Name and address supplied

£399 for your Back Issue CD?

 Are you in desperate need of money at *Computeractive*? I saw your 2014 Back Issue CD being sold for a whopping £399 on Amazon (see screenshot above right) – and don't forget the £2.80 postage! I bought the CD a couple of weeks ago for £15, which now



seems like a bargain. It's great, and I've been using it every day, but sorry it ain't worth £399. That would buy me 133 pints down my local!

Doug Marquis


CA says That's more than it would buy in our local – central London prices being what they are. We don't blame Doug for being shocked by the price of the CD. At £399, it's almost a 2,700 per cent increase on our RRP! It's not us selling the CD, but a third-party seller who must have bought it through Amazon for £15, then decided to charge this rip-off price when selling



it through the Marketplace. We can't stop people doing this, but happily Amazon is sticking to the original £15 – buy it at www.snipca.com/14981, or search Amazon for 'computeractive cd'.

The £399 CD was still on sale as we went to press (www.snipca.com/15746), and at that price it will probably remain so forever!


Forget wellies – my broadband needs more welly

 To the absolute ignorant person in Letters, Issue 445 (George Parks) who believes everybody in the countryside has wellies and Land Rovers, here's a reality check.

Only a quarter of the cabinets in my village (near Northampton) has fibre. I enjoy gaming on my custom-made computer but have you ever downloaded Skyrim (11GB) on broadband? It takes four hours, sometimes more, if the connection is unreliable.

If anything goes wrong with

Vile phone scammers 'deserve all the abuse they get'

 Has the Royal Society for the Prevention of Cruelty to Scammers just bought a subscription to *Computeractive*? I ask because I've read several letters recently urging us not to be nasty to these delicate souls, the latest being Alan Ingrey's letter in Issue 445.

Well, I think Jane Hoskyn's Villain of the Fortnight in the same issue (page 10) reminds us that these scammers won't cry themselves to sleep because we hang up after shouting a naughty word. She told us the horrible story of a phone scammer threatening to kill a Canadian man who had the temerity to ask him why he was trying to con people. So, do-gooders, remember



what kind of people these scammers are. They aren't vulnerable victims being coerced into making malicious phone calls; they are aggressive criminals prepared to bully and intimidate. I know this myself after talking to one last year, who told me that he'd "pester me every day at six in the morning" until I agreed to install his malware on my PC. These people are vile, and deserve all the abuse they get.

Mike Amos

the game or it needs to be downloaded again I have to phone my friend, take my desktop computer with me and download it on his fibre connection two minutes up the road.

My actual gripe is how my village's broadband service is apportioned, because I only have to walk two minutes within the same postcode to get super-fast broadband. I believe I have a better chance of winning the Lottery then knowing why this is.

Now I am going to put my trainers on and drive into town in my partner's Ford Fiesta.

Gail Coles

New Forest ponies say neigh to fast broadband

Following conversations about broadband speeds in *Computeractive*, in our little corner of rural Hampshire (Woodgreen village), we are left amused and envious of those around us with their talk of gigabytes and fibre. On a good day we might get 1.5Mbps. Even our nearest neighbour, Hale, has 95 per cent of residences on 3-4Gbps.

The problem is that in the New Forest the allocation of the land is controlled by the Verderers (www.verderers.org.uk). The ideal place to install fast broadband is a patch of land about three metres in diameter, outside our local pub, which has a redundant bus shelter (there are no buses) and a red phone box on it. It's listed as grazing land for the ponies, so cannot be used for other purposes. And up to now the Verderers won't budge - not that the ponies appreciate this!

Derek Minns

Only April Fools still use XP

In News, Issue 445, you said you were starting a series on what to do with XP computers, and that it would begin in your 1 April issue. Please tell me this is an April Fool's joke. XP has passed on! It has ceased to be! It's a stiff! It's kicked the bucket, shuffled off this mortal coil, run down the curtain and joined the bleedin' choir invisible! It is an ex-operating system (with apologies to John Cleese). Please *Computeractive*, you shouldn't be encouraging people to use an operating system that's deadlier than a dead parrot.

Harry Powell

STAR LETTER

Amazon right to ban libellous reviews

I was very interested in the Consumeractive case of Malcolm Adnett in Issue 445. He was complaining that Amazon won't publish his negative review of a flash drive. Maybe he thought it was an attack on his freedom of speech and that he should be allowed to say what he likes, but as you rightly pointed out there is a major risk of libel. Amazon gets a lot of criticism for its tax-avoiding antics, but it's right to stand up for small businesses whose reputation would be damaged by false reviews.

I have no idea if Malcolm's flash drive was 'fake', but the point is: nor does he. Think about it - how could he know? He may suspect it is, but how could he prove it? I accept he's perfectly entitled to make a subjective criticism within his negative review, maybe by suggesting that the drive isn't very easy to use. I'm pretty sure Amazon would have allowed a comment like that. But customers simply can't make wild claims about products that could jeopardise the future of a business.

I speak from experience. Since retiring a few years ago, I've been

running a small company selling homemade items through Amazon Marketplace. A year ago, we were on the receiving end of some blatantly unfair reviews which libelled us. Fortunately, Amazon listened to our grievance, and removed the reviews, but not before our status as a trusted business had been undermined.

We live in an age where the customer is king. You see this on eBay, where the buyer can leave negative feedback, but the seller can't. The knock-on effect is that buyers think they are never, ever wrong, and therefore make unreasonable demands. Like a child who always gets what they want after throwing a tantrum, online buyers are spoilt rotten at the moment. Thanks *Computeractive* for bringing this often overlooked matter to the attention of your readers.

Mary Robinson



The Star Letter writer wins a *Computeractive* mug!



CA says We agree that you shouldn't use an XP PC as your main computer, but there are lots of ways you can still use it safely. So the start of our XP series on page 60 isn't a hoax, but we do have some April Fool's fun on page 57.

How uncooked rice can save drowned phones

I must confess to being bemused by Tony Davies' letter in Issue 444 ('Beware killer taps'), and his reported loss of an expensive phone after his wife dropped it into a sink and drowned the

dratted thing.

I am a novelist and journalist/photographer. I've travelled almost everywhere and I have dropped phones in the sea, in rivers, into a fish tank and down the loo (which became the subject of caustic comments from my associates). Each time I have just removed the battery, given the phone a shake to rid it of excess water, then shoved it into a bowl of

uncooked rice. Within 24 hours the rice has absorbed every (tear) drop. I've been lucky and recovered a couple of batteries - but that's cheaper than a new iPhone!

Dominic Fahr



Consumeractive

Should I report TalkTalk to Ofcom?

Q I moved house at the end of October 2014. I remained with TalkTalk for broadband and phone, but signed up to a new package. I'd paid one year's line rental on the original contract and am owed £61.15 for this. But getting TalkTalk to give me this refund is impossible. They told me over the phone that it would be in my account within 10 days, but months later I'm still waiting. Should I complain to Ofcom?

Fred Frost

A Yes, Fred should complain to Ofcom because this helps the regulator monitor on bad customer service and unfair practices by ISPs. However, Ofcom won't take on his case, so we will.

So far, Fred has only spoken to TalkTalk over the phone. He should also email TalkTalk (www.talktalk.co.uk/contactus), outlining his complaint in full, using specific dates when possible. We don't believe TalkTalk is disputing Fred's claim, but has simply failed to process the refund.

Fred could have referred it to the Ombudsman (www.snipca.com/15673), but first he would need to have asked TalkTalk for a deadlock letter, in which a company confirms how they plan to resolve a complaint (use this template when requesting one: www.snipca.com/15676).

CASE ONGOING

Can I challenge HMRC's import fees?

Q I paid £16.90 for some plastic food containers from an Amazon seller called Shopforyou. I didn't realise the seller was based in South Korea so I ended up paying a further £11.38 to HMRC in VAT and for handling. I don't think I should have to pay this, so is there any way I can challenge this charge?

Hillary Duffy

A Yes there is. Hillary should contact HMRC to try to get her money back. This can be done by printing then posting a claim form from the HMRC website (www.snipca.com/15667, scroll down to the bottom). Hillary will have a greater chance of winning if she has kept the packaging the goods came in.

However, after looking into Hillary's case, we're quite pessimistic about her chances. This is because HMRC is likely to reject her defence, which rests on her failing to realise the company is based in South Korea. HMRC will probably say that Hillary was responsible for checking this before confirming the purchase.

The charges Hillary paid comprised a handling fee of £8, and VAT of £3.38 (20 per cent), which is added to imports from outside the European



Union that cost more than £15. However, you can avoid VAT on goods priced under £36 from outside the EU if they are labelled as 'gifts'. Shopforyou seems to have tried to help Hillary avoid charges by doing this, but HMRC's rules state that for an item to qualify as a gift it must be sent to and from individuals, not companies. It seems likely that HMRC realised the parcel wasn't a gift from one person to another. Read the full regulations on HMRC's 'Tax and customs for goods sent from abroad' page (www.snipca.com/15678).

To avoid unexpected import charges, make sure you double-check the location of a seller on eBay and Amazon. Hillary can help other shoppers by leaving feedback about her experience, warning people that what seems like a bargain may not turn out to be so.

CASE CLOSED

Does creating a recovery USB make a new PC second hand?

Q I found out recently that PC World has been making customers a recovery backup on a USB stick. Unlike Nick Dobie's case in Issue 440 where Currys was trying to sell him a USB stick for £35, PC World only charges £10. I think this is great customer service, but I've got a question.

If PC World did this without your permission, does this make the laptop second hand in the eyes of the law?

Ian Bebbington

A No it doesn't, though it is an interesting question. If you buy a new computer and a recovery backup is created by the retailer, this isn't seen as 'use' by the law. It's no different to a manufacturer creating a portion on the hard drive as backup, which is very common practice.

For a computer to be 'used', it must have had a previous owner (the legal definition of second hand). A retailer creating a backup USB stick doesn't mean the PC stops being seen as brand new.

Like Ian, we think this is a very good service, but if you don't want it just tell the shop not to create one for you. A sales assistant can't force you to buy one as part of the deal. Nick Dobie was told this misleading information by a Currys sales assistant in the case we reported in Issue 440.

CASE CLOSED





✉ Contact us so we can investigate your case

Email: consumeractive@computeractive.co.uk

Write: Consumeractive, Computeractive, 30 Cleveland Street, London W1T 4JD
Please include both your phone number and address.
Unfortunately, we can't reply to all your letters.

We stand up for your legal rights

Can you help my claim against Ebuyer?

Q Two years ago I bought an Asus 660GTX graphics card from Ebuyer for around £300. It came with a three-year warranty, but suddenly stopped working. I sent it back to Ebuyer, but they have accused me of causing the damage by adding thermal paste. I categorically deny this has happened. Can you advise me?

John Shorter

A Indeed we can. By claiming that John broke the graphics card by applying thermal paste, Ebuyer is saying that the problem was caused by accidental damage, and therefore isn't an inherent fault. If this were true, John's warranty would be invalid, and he wouldn't have a legal claim using the Sale

of Goods Act (SOGA).

Because John has owned the graphics card for more than six months, he will have to prove that it is inherently faulty. Before the six-month cut-off, the retailer has to prove accidental damage. John is confident that the fault is inherent, and has sent the card to an independent computer repair company for examination. If this report backs up his claim, then we'll be able to help him tackle Ebuyer.

If he wins his case, it's unlikely Ebuyer will offer to repair the card, so he'll be



ebuyer.com

entitled to a replacement, or a partial refund (because he's already used the card for some time). Ebuyer will also have to pay him the cost of the examination.

CASE ONGOING

CASE UPDATE



At long last - Vodafone refunds TopUp and Go customers

Vodafone has finally decided to refund customers who lost money when the company ceased supporting its 'TopUp and Go' mobile-broadband dongles. Our struggle to resolve this began in Issue 432, last September, when reader and former TopUp and Go customer Brian Patterson contacted us. Since then, several other readers have emailed us to say that they also lost money. They all had outstanding credit in their account when Vodafone stopped the service.

We've already run one update on this case, in Issue 442, when we advised unhappy customers to complain to the Ombudsman Services (www.ombudsman-services.org). Some readers took our advice, and the Ombudsman ruled in their favour, forcing Vodafone to refund them. We had also told Ofcom of our readers' complaints.

In February, Vodafone told us it will refund customers, which is good news. If you think you're owed money, email us your details with 'Vodafone TopUp' in the subject line. Please remember to include your name, address, a contact phone number and the dongle number, which you can find on the SIM card inside. If you want Ofcom to investigate your case further, please let us know and we'll pass on your details.



THIS WILL COME IN USEFUL

Charities contact details

British Heart Foundation
0300 330 3322

Contact form:
www.snipca.com/15556
Email: supporterservices@bhf.org.uk
Twitter: [@TheBHF](https://twitter.com/TheBHF)

Cancer Research
0207 242 0200

Contact form:
www.snipca.com/15557
Twitter: [@CR_UK](https://twitter.com/CR_UK)

Macmillan Cancer Support
0300 1000 200

Email: webmanager@macmillan.org.uk
Twitter: [@macmillancancer](https://twitter.com/macmillancancer)

NSPCC
0808 800 5000

Email: help@nspcc.org.uk
Twitter: [@NSPCC](https://twitter.com/NSPCC)

Oxfam
0300 200 1292

Email: enquiries@oxfam.org.uk
Twitter: [@oxfamgb](https://twitter.com/oxfamgb)

RNIB
0303 123 9999

Email: helpline@rnib.org.uk
Contact form: www.rnib.org.uk/contact-us
Twitter: [@RNIB](https://twitter.com/RNIB)

Royal British Legion
0808 802 8080

Contact form:
www.snipca.com/15558
Twitter: [@PoppyLegion](https://twitter.com/PoppyLegion)

RSPCA
0300 1234 999

Twitter: [@RSPCA_official](https://twitter.com/RSPCA_official)

Save the Children
0207 012 6400

Twitter: [@savechildrenuk](https://twitter.com/savechildrenuk)



Protect Your Tech

Scams and threats to avoid, plus new security tools

WATCH OUT FOR...

FREAK flaw fixed by Windows update

What happened?

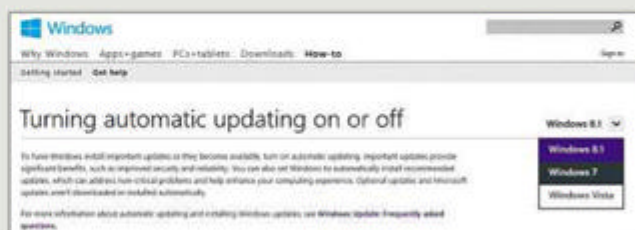
Microsoft released a Windows update that fixed the FREAK flaw, which was revealed by security researchers in early March (see News, Issue 445). The fix arrived a week later in Microsoft's Patch Tuesday update for March.

The flaw, which has existed since 1999, means hackers can make sure data that's sent between browsers and **servers** uses weak encryption. This makes it easier for them to steal personal information, such as the banking details of people browsing the web. Given the length of time the flaw lay undetected, and the severity of the damage hackers could do with it, Microsoft's fix could be considered one of the most important Windows updates ever. Other companies, including Apple and Google, have also released fixes.

The fix was one of 14 released by Microsoft. They include updates for Internet Explorer and Office, which were rated 'critical' – the highest threat level, above 'important', 'moderate' and 'low'. Left unfixed, these flaws could potentially let a hacker take remote control of an infected PC. Read Microsoft's 'Security Bulletin for March' for more information (www.snipca.com/15754).

What should you do?

As we always say when Microsoft releases security fixes, you need to make sure you have 'automatic updating'



turned on. Once it's activated, you can sleep easy in the knowledge that Microsoft's updates will be applied to your operating system. It's very important advice, so it's always worth repeating this.

To learn how to do it, visit Microsoft's 'Turning automatic updating on or off' page (www.snipca.com/15755, see screenshot), then choose your operating system at the top-right (XP isn't listed because Microsoft ended support for this in April last year).



ScamWatch
READERS WARN READERS

You'll find plenty of new security tools in our Cover Feature (page 50), so for this issue we've made ScamWatch bigger

Want a call-blocker? No thanks

I had a phone call from a firm suggesting that my phone provider wanted to offer me a call-blocker device because of all the unwanted calls I had received lately. They said the device would be free, and I'd only have to pay the £1.75 postage costs. The caller knew my name, but never mentioned my phone provider by name. When she asked for my debit-card details to take the £1.75, I hung up. She rang back later but I declined her kind offer. The caller was English and dialling 1471 gave me the number 0113 834 6763. A search for the number on Google didn't produce any indication that this was a known scam number.

Eric Gendle

Beware Facebook 'money mule' requests

I'd like to report a horrible scam that one of my relatives almost fell for. She saw a post on one of the Facebook groups she belongs to, which was asking for people who would 'hold' money in their bank account, so it could be sent abroad at a later date. She said it sounded like an easy way to make a bit of cash, and asked me what I thought. I took a look, and immediately realised it was some kind of money-laundering scam. If you fall for the scam, you are in effect becoming a money mule. I looked online for more information, and came across this confirmation from ActionFraud: www.snipca.com/15759.

Clive Turner

Asked to confirm Apple account

On 5 March I received an email from do_not_reply@apple.com signed by the Apple Care Team. It told me that my "Apple Email ID" had been used to buy Enrique Iglesias's album *Desperado* from iTunes on an Apple device not "associated" with me. They wanted me to check whether I'd made the purchase and to confirm my account. It sounded dubious, so I contacted Apple and it turned out that nothing had been charged to my iTunes account. The email would appear to be an attempt to obtain my bank details. I forwarded the email to Apple (via reportphishing@apple.com) for them to deal with.

George Brion



Warn your fellow readers about scams at letters@computeractive.co.uk



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VIDEO & MUSIC PLAYER

VLC 2.2.0

www.snipca.com/15849

What you need: Windows XP, Vista, 7 or 8/8.1



If you're still using iTunes for playing music and video on your PC, what are you *thinking*? VLC, officially called 'VLC media player', has been outclassing iTunes (and Windows Media Player – aka WMP) for 14 years now, offering far greater reliability, ease of use and format support.

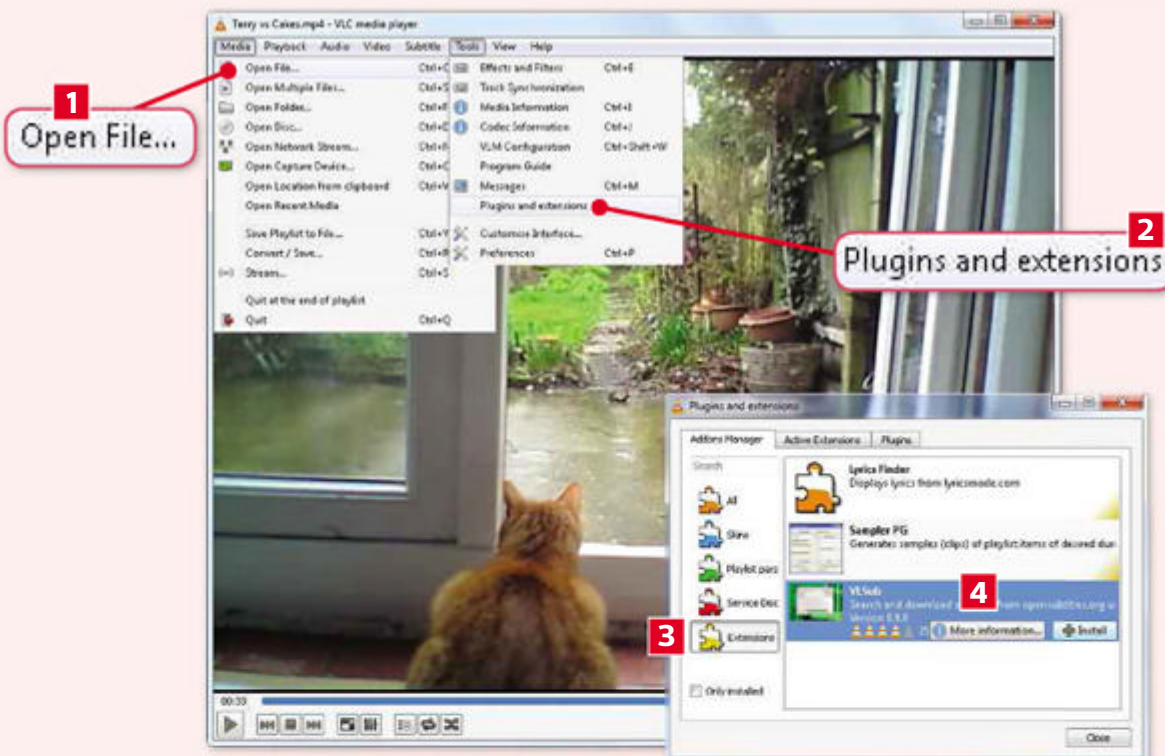
VLC is not stuffed with memory-hogging novelty features, and there's no iTunes-style library system to worry about. Just open a file or insert a disc and it will play. VLC supports vastly more codecs (which roughly means formats) than iTunes or WMP, and it also lets you play DVDs, CDs and VCDs (www.snipca.com/15852). We've even found it can play (some) corrupted audio and video files.

New formats are being invented all the time, so VLC 2.2.0

stays up to date by adding support for the latest UltraHD video codecs. It also now automatically rotates video files so they're the right way up – ideal for watching hastily recorded smartphone videos.

The most noticeable change, though, is a new 'Plugins and extensions' manager. VLC has supported extensions for years, but you had to download them from the internet and import them into the program manually – a bit of a hassle. Now you can browse, add and manage extensions and other types of **plug-in** from inside the program, just as you would in Chrome or Firefox.

To get VLC, click the big orange Download VLC button, then save and run the installer. There's no bundled adware or extras.

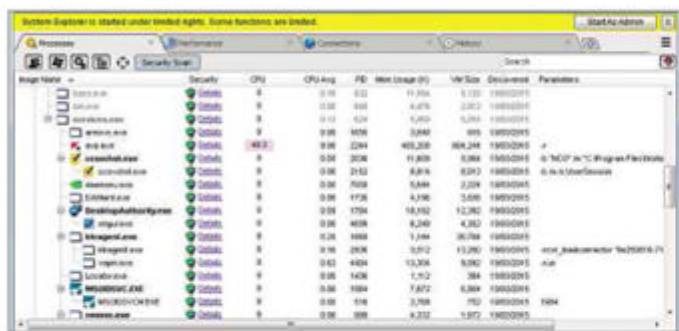


1 Click Media, Open File, then click a video or audio file on your PC to load it instantly in the player. The player window adjusts automatically to fit a video's dimensions.

2 Click 'Plugins and extensions' in the Tools menu to open VLC's new extensions manager, then click 'Get addons' at the bottom left of the manager window.

3 Click Extensions in the 'Plugins and extensions' manager to see just extensions, such as VL Sub (which lets you find and download subtitles) and Lyrics Finder.

4 Click an extension then More Information to see a description, then click Install to add it to VLC. You can remove extensions by going to the Active Extensions tab.



SYSTEM MONITOR

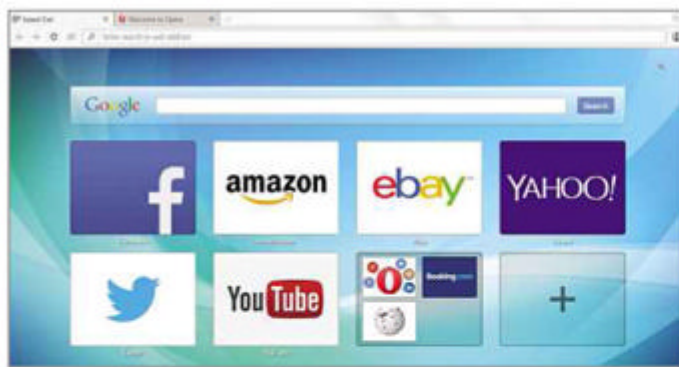
System Explorer 6.4.0

www.snipca.com/15856

What you need: Windows XP, Vista, 7 or 8/8.1

Lift the lid on your PC with this powerful Task Manager replacement. It scans your running processes for security problems, memory usage, recent actions and much more. If you don't recognise a process or it seems to be causing trouble, click its Details link to investigate it on the System Explorer website.

Now for a grumble. System Explorer tries to warn you off its portable version ('Not recommended!') so that you use its installable version instead. You can download them both from the link above. Fact is, they're almost identical, so go for the portable version. It's not strictly portable anyway, because it installs a few program files and makes you accept a licence agreement. There's no adware, however. The program window opens once you've run the initial Security Check, which takes a couple of minutes.



BROWSER

Opera 28

www.snipca.com/15853

What you need: Windows XP, Vista, 7 or 8/8.1

With Internet Explorer (IE) facing its demise, Chrome constantly crashing, Firefox constantly changing and Spartan getting everyone talking, it's easy to forget there are other browsers, too. Opera has been around for 21 years and there's plenty of life in it yet, as this new version is eager to prove. The revamped Start page has a Speed Dial feature for your most-visited sites; there's now a Discover tool for automatically gathering news, a bit like RSS without any of the hassle; and the new Opera Turbo technology compresses data for much faster and more reliable browsing. Opera may not grab as many headlines as Spartan, but it deserves consideration if you've decided to ditch Chrome or IE.

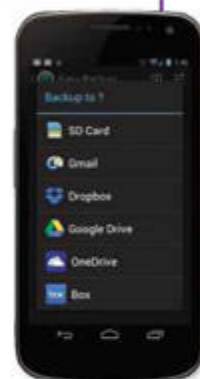
WHAT SHOULD I DOWNLOAD?

We tell you what software to use

What should I use to back up Android?

Q I have an Android smartphone and tablet, and I want to back up all their data for safekeeping. I tried using ES File Explorer, but couldn't get the hang of it. Is there a full backup program for Android, like the PC program Macrium Reflect?

Mike Lovell



A Most people know the importance of backing up their PC, but don't back up their mobile devices - which are much easier to lose and break than PCs, and often contain very sensitive data (such as private text messages).

There's no direct Android equivalent of Macrium, but there are plenty of free, thorough alternatives. Easy Backup & Restore (www.snipca.com/15861) lets you securely store apps, messages, contacts and more to locations of your choice, including Gmail and OneDrive, and restore them if needed. CM Backup (www.snipca.com/15868) is more powerful, but also more complicated. Both have just been updated to support Android Lollipop, and neither demands **root access**. Never give an app root access - it leaves you wide open to mobile malware.

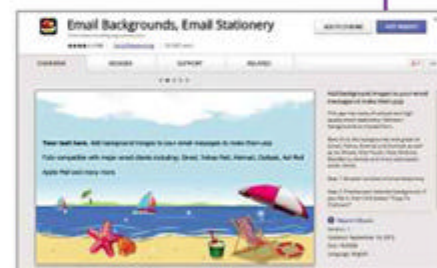
What's the best replacement for Outlook Express stationery?


Q I was very happy with Outlook Express until Microsoft pulled the plug. Windows Live Mail (WLM) is OK, but doesn't include stationery tools, such as coloured email backgrounds. Is there a similar program that does?

Trevor Adams

A If lack of stationery is the only thing you don't like about WLM, download the free WLM stationery extensions from Cloudeight (www.snipca.com/15864).

Alternatively, switch to a free online email service such as Gmail, which supports browser extensions like Email Backgrounds (www.snipca.com/15866). Browser extensions are very easy to use and can be installed with one click.



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Reviews

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Motorola Moto E 4G

A quality Android 4G phone for just £100

Motorola makes some great Android devices, but the original Moto E smartphone wasn't one of them (see our review, Issue 426). It may have been cheap, but it was undermined by its poor responsiveness and performance. There was little point in choosing it over the slightly more expensive Moto G. That's no longer the case with the new Moto E.

The most significant new feature (and the clue's in the name) is the addition of 4G, making this the cheapest 4G Android phone we've tested. When we were connected to Vodafone's 4G network in central London, the battery lasted a staggering 45 hours 50 minutes when used for web browsing, calls, taking photos and GPS. When playing videos continuously, battery life was equally impressive at 13 hours 18 minutes.

Call quality was generally excellent. The phone managed to shut out the racket of a drill and power washer as we walked by, albeit at the expense of audio

“Motorola has done it again – the ideal phone if money is tight”

quality. Callers reported that we sounded quiet and distant. The quality improved no end once we'd moved away from the source of this noise pollution.

At first glance, the new Moto E looks similar to its predecessor, but look a little closer and you'll see it's been redesigned inside and out. While it still has a **microSD** slot (essential for supplementing the meagre 8GB of built-in storage), you no longer remove the back panel to access it. Instead, you unclip the plastic rim running around the edge of the phone, providing easy access to both the **micro SIM** and microSD slots. Thanks in part to the fixed back panel, the phone feels exceptionally rigid and robust – especially compared with other phones at

this price. This does mean, however, that you can't replace the battery or add a different coloured back panel for that personal touch.

The first Moto E had a **dual-core processor**, which simply wasn't fast enough to run Android smoothly. The new **quad-core processor** here has no such trouble. Everything from loading web pages to opening apps was a breeze. Although the touchscreen can still sometimes suffer from poor responsiveness, it's still a big improvement on its predecessor, and many other budget Android phones for that matter.

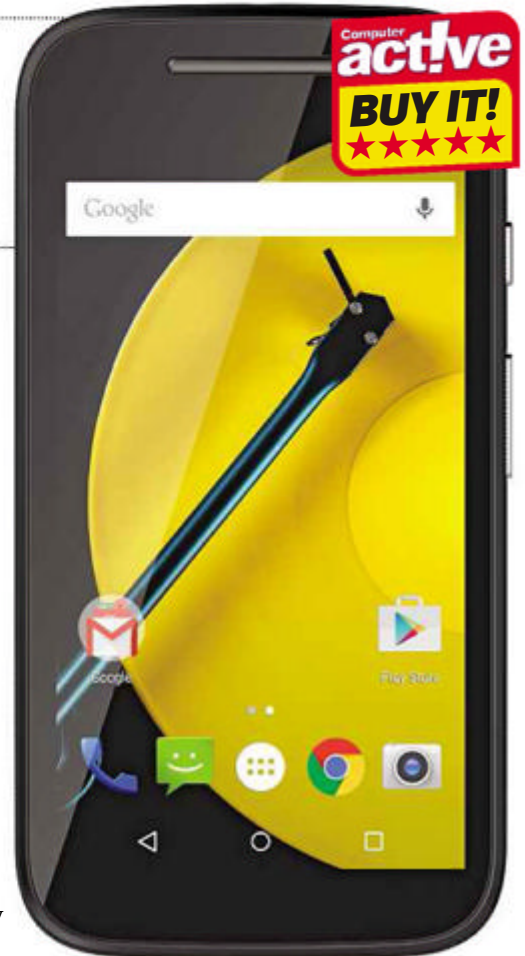
People with smallish hands will find the 4.5in screen a little unwieldy to use. It's bright with accurate colours, although the contrast is pretty mediocre. More limiting is the 960x540-pixel **resolution**, which in a screen this large makes text look a little ragged. As a result, reading for long periods can be a strain on your eyes.

The camera's only really good enough for quick snaps if you need a record of something or as a last resort when it's the only camera to hand. With no flash to fall back on, shots taken in low light are dark and blurry, and therefore unusable. **Noise** was a common problem, even in photos taken in daylight, though these were well lit with reasonable levels of detail.

The Moto E 4G is one of the first phones to come with Android 5.0 Lollipop – all the more impressive given that many more expensive phones are stuck on earlier versions. We covered Lollipop's major new features in our review of the Nexus 9 tablet (see Issue 438). Motorola has wisely left Lollipop almost entirely

SPECIFICATIONS

4.5in 960x540-pixel touchscreen • 1.2GHz Qualcomm Snapdragon 410 quad-core processor • 400MHz Adreno 306 graphics chip • 1GB memory • 8GB storage • 4G • micro SIM • microSD • Android 5.0.2 Lollipop • 145g • 130x67x12mm (HxWxD) • One-year warranty www.snipca.com/15772



unaltered, save for the addition of a few apps. The most useful is Alert. Once set up, it lets you quickly send messages to friends and family in an emergency and even informs them of your location.

Motorola has done it again – the Moto E is a bargain. While it's not perfect (what is?), this is the ideal smartphone if money is tight. If you do have a little more cash at your disposal, then the 4G Moto G is still a great option, thanks to its sharper, higher-resolution screen and smoother responsiveness.

VERDICT: The best budget Android phone available

★★★★★

ALTERNATIVE: Motorola Moto G 4G (2nd generation) **£159** A little more expensive, but more responsive and with a sharper 5in screen



LAPTOP | £317 from www.snipca.com/15764

Asus X555LA-XX290H

Finally, a budget Windows laptop actually worth buying

We rarely recommend very cheap Windows 8.1 laptops because they usually represent a false economy. Many previous bargain-basement models we've tested have been hamstrung by poor-quality construction, plodding performance, badly lit screens and unwieldy keyboards. Asus has bucked the trend with the X555LA – a no-frills laptop that costs just over £300 and puts other budget laptops from higher-profile rivals to shame.

The first thing you notice is how light the X555LA is for a 15.6in laptop with a built-in DVD writer (2.1kg, increasing to 2.3kg with charger). It's still likely to spend more time at home than out and about, but its eight-hour battery life keeps open the option to use when you're travelling. A circular pattern on the lid brings a touch of style to what is

“Its performance and bright screen puts other budget laptops from higher-profile rivals to shame”

otherwise a plain design, and its plastic casing does tend to creak and flex too easily. On the plus side, though, it never became unbearably warm underneath during our tests.

Performance-wise, this laptop more than holds its own. The 1.9GHz Intel Core i3 4030U dual-core processor, combined with 4GB of memory, makes it fast enough for use as your main computer. You can easily upgrade the memory, but

SPECIFICATIONS

1.9GHz Intel Core i3 4030U dual-core processor • 4GB memory • 1TB hard drive • DVD writer • Intel HD 4400 integrated graphics • 15.6in 1366x768-pixel screen • 802.11a/b/g/n • Windows 8.1 • 2.1kg (2.3kg with charger) • 26x382x256mm (HxWxD) • One-year warranty www.snipca.com/15765



only up to 8GB. This will be sufficient for the next year or two. After that, you might start feeling its limitations as software will inevitably require more resources. On the whole, it's pretty hard to get inside this laptop, making it next to impossible to replace the 1TB hard drive with a larger model or an SSD.

Unsurprisingly for this price, there's no touchscreen, and to be honest little need for one because the touchpad is spacious, very responsive and accurate. We liked the keyboard too. The keys feel a touch wobbly and could benefit from a tad more resistance, but they don't lack feedback and travel, which makes for fast and precise touch typing.

Being a budget laptop, the screen has a 1366x768-pixel resolution, and isn't blessed with great colour accuracy and contrast. It is bright though and viewing angles are reasonably wide too. You can of course connect a second, higher-quality monitor via HDMI or VGA.

As with any budget laptop, Asus has made compromises with the X555LA, but for the most part it's made the right ones. Any flaws are easy to forgive, given its comfortable keyboard, pacy performance, respectable battery life and radiant screen. If you use XP or Vista currently, it's the ideal laptop for those who wish to move to Windows 10 when it becomes available as a free upgrade to Windows 8/8.1 users later this year.

HOW WE TEST

Computeractive is owned by Dennis Publishing, which owns a hi-tech facility for testing the latest technology. You'll often read references to our benchmark testing, which is a method of assessing products using the same criteria. For example, we test the speed of every PC and the battery life of every tablet in exactly the same way. This makes our reviews authoritative, rigorous and accurate.

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Our writers follow strict guidelines to ensure the reviews are fair and impartial. The manufacturer has no involvement in our tests.

OUR AWARDS



We award every product that gets five stars our Buy It! stamp of approval. It means we were extremely impressed by the product, and we think you will be too.



Every product that gets a four-star review is given the Great Pick award. We highly recommend these products, although they just fail to meet the high standard of our Buy It! winners.

PRICES

Our reviews contain a link to the best price we found online at the time of press.

VERDICT: A cheap laptop that gets all the basics right, making it great value



ALTERNATIVE: Toshiba Satellite Pro R50-B-12U £390

A 15in Windows 7 laptop that's easier to upgrade, has comparable battery life and has recently dropped in price



Reviews

PRINTER | £94 from www.snipca.com/15679

Canon i-SENSYS LBP6230dw

A mono laser printer for sharing on a home network

Canon's LBP6230dw costs about £35 more than the most basic black-and-white (mono) laser printers, but in this case it's money well spent. It claims a top speed of 25 pages per minute (ppm), which isn't bad, but we're more impressed by the fact you can share it over a wired or wireless network connection, and that it prints automatically on both sides of a sheet of paper (duplex printing).

The paper input tray, which has a transparent lid to keep dust out, also acts as a single-page bypass feed. This means you don't need to unload the input tray first if you want to print on an envelope or headed paper. The paper output tray is basic though, and can leave printed pages

in an untidy pile. Replacement toner costs about £44 and lasts for around 2,100 pages – a cost per page of roughly 2.1p, which is expensive for a laser.

The printing process was quick in our tests, delivering a first page in nine seconds, and a total of 20 pages in 56 seconds – a fast average of 21.4ppm. Printing graphics was equally quick, while duplex printing produced 20 sides on 10 sheets in one minute 26 seconds. It's a quiet operator and its barely audible fans stopped a few seconds after printing ceased. Both text and graphics results were excellent, although some photos looked artificial, with too much contrast.

High running costs mean we wouldn't recommend this printer for heavy-duty use, but it's still a good buy for occasional printing at home due to its impressive features, quality and speed.



VERDICT: Fast and flexible, this is a great mono printer for light duty in a home or small office

★★★★★

ALTERNATIVE: Brother DCP-1610W £127 A mono laser MFP that costs only a little more, although running costs are no cheaper



SPECIFICATIONS

2400x600dpi maximum print resolution • 20ppm mono quoted speeds • USB • Wi-Fi • One-year warranty www.snipca.com/15680

SSD | £334 from www.snipca.com/15682

Samsung 850 Evo 1TB

A cheaper version of Samsung's lightning-fast 850 Pro SSD

The Samsung 850 Pro is one of the fastest SSDs we've ever tested (see our review, Issue 440) – and one of the most expensive. The 1TB 850 Evo comes in at a more affordable at 33p per gigabyte (the Pro is 46p per gigabyte). The difference between the two is durability. Samsung claims the Evo will handle 150TB of copied data over its lifetime, while the Pro is rated for 300TB. For most people though, 150TB should be more than enough. The Evo also has a shorter warranty – five instead of ten years.

The Evo is slower than the Pro, but isn't too far behind. It



copied large files at 545MB/s and small files at 75MB/s. The Crucial MX200 (see right) is faster and has similar durability. If you want an even cheaper SSD and can live with lower durability, the 1TB BX100 (see our review, Issue 445) costs £284 (or 29p per gigabyte) and is rated for 72TB.

VERDICT: A blisteringly fast SSD, but better-value alternatives are available

★★★★★

SSD | £169 from www.snipca.com/15685

Crucial MX200 500GB

A super-fast SSD at a fair price

The MX200 isn't Crucial's cheapest range of SSDs (see our BX100 review in Issue 445), but the 500GB version reviewed here is still very affordable at 34p per gigabyte.

It has plenty going for it besides this. It can officially handle up to 160TB of data over its lifetime – this rises to 320TB for the 1TB version. This is more than twice the durability of many cheaper SSDs. The MX200 is also one of the fastest SSDs we've ever seen when copying large files, reaching an overall speed of 575MB/s. It wasn't quite as brisk when copying small files, but was still quick at 76MB/s.



The MX200 is a great SSD. It's clearly better than cheaper SSDs, like Crucial's own BX100, and stays ahead of other similarly priced and specified drives such as Samsung's 850 Evo (see left). It's a worthy winner of our Buy It! award.

VERDICT: Faster performance and better durability – a worthy step up from a budget SSD

★★★★★



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PHABLET | £99 plus £34.50 monthly on two-year Vodafone contract; £650 without contract from www.snipca.com/15817

Samsung Galaxy Note Edge

An average phablet with a curved screen

The forthcoming Samsung Galaxy S6 has received an awful lot of attention for its curved screen. Amid all the hype, it's easy to forget that it's not the first Samsung phone with this eye-catching feature. The Galaxy Note Edge has a screen that curves away on its right-hand edge (see image), although the S6 Edge will have two curved edges.

The Note Edge's curve is much more pronounced however, measuring almost a full centimetre. From time to time, users who are right-handed will find themselves accidentally triggering onscreen controls with their thumb. Left-handed users can turn the phone upside down and flip the interface via a software setting, but doing so means they'll have to use a headset to make and take calls because the mic and earpiece will no longer be in the right positions.

The bar containing all your favourite apps has been moved to the curved edge.

“The curved screen drives up the cost and brings negligible benefits”

Swiping the curve from right to left lets you access other features, such as a ruler, a torch, notifications and a news and stocks ticker. The screen can even be set to act as a bedside clock when plugged in and laid flat.

Other features can be added by downloading 'panels' from Samsung's app store. Most of these merely replicate the functions of traditional Android **widgets** and aren't particularly convenient or useful. We weren't won over by any of the screen's features.

SPECIFICATIONS

5.6in 2560x1440-pixel touchscreen • 2.7GHz Qualcomm Snapdragon 805 quad-core processor • 3GB memory • Adreno 330 graphics chip • 32GB storage • 4G • Micro SIM • MicroSD slot • Android 4.4 KitKat • 174g • 152x83x8mm (HxWxD) • One-year warranty www.snipca.com/15818



Aside from its curved screen, the Note Edge is very similar to the Note 4 (see our review, Issue 440). Like other Galaxy Notes, it comes with a stylus. Pop it out of its slot and a dial appears on screen that lets you quickly jot down your thoughts, draw a diagram or annotate a screenshot. Samsung's app store contains a small selection of apps to use with the stylus, mostly for painting and drawing. We used the stylus sparingly, but we found it to be more useful than the curved screen.

If you like using fingerprint readers as an alternative to a passcode to unlock your device, then you're in luck (sort of). Unfortunately, the Note Edge's reader is as frustrating to use as those on other Galaxy phones. It requires a slow, precise finger swipe, making it much more fiddly than the fingerprint readers on Apple's recent iPhones.

We weren't exactly bowled over by the camera either. It coped well with landscape shots in broad daylight, but skin tones in portraits looked smeared and artificial. Low-lit images were often too dark, too blurry or too blighted by **noise**.

Other hardware features are more impressive. The **quad-core processor** raced through our benchmark tests, and the touchscreen responded quickly to our prods and swipes. While the 5.6in screen is unwieldy if you're using one hand, it's bright with accurate colours and sharp

text, thanks to its very high **resolution**.

Call quality in London's West End on the Vodafone network was surprisingly poor. Callers sounded quiet and remote, while calls suffered from frequent drop-outs. Background noise from a busy building site made it past any filtering technology, so it remained very much audible. Battery life was a little below average compared with other phablets. It lasted 23 hours 20 minutes when we were connected to Vodafone's 4G network and used the phone for calls, taking photos, web browsing and **GPS**. Continuously playing videos, the battery life lasted 14 and a half hours, which is three hours fewer than the Note 4.

We're not convinced by the Note Edge's curved screen. Its benefits are negligible and it drives up this phablet's price (it costs nearly £150 more than the Note 4). If this is the best Samsung can do, then curved mobile screens will be a very short-lived fad indeed.

VERDICT: The slim benefits of the curved screen aren't enough to justify the price premium over the Note 4

★★★★☆

ALTERNATIVE: Samsung Galaxy Note 4 **£515** (without contract) An essentially identical phablet but cheaper because it has no curved edge



SMART TV | £376 from www.snipca.com/15699

Samsung UE40H5500

Great picture quality and all the TV apps you'll ever need

The UE40H5500 looks far more unassuming than the rest of Samsung's TVs due to its plain, unadorned stand. But while it isn't as glitzy looking as Samsung's more expensive TVs, its picture quality is impressive.

Both brightness and contrast were excellent in our test, so we could easily make out details in dark scenes in films and TV shows. The only flaws we could see in its colour accuracy were overly strong blues and magentas. We managed to compensate for this, though, by fiddling with the picture-quality settings. The only setting we'd recommend you avoid using is 'motion lighting'. This attempts to save energy by automatically adjusting the brightness depending on what's on screen, but this negatively affected contrast levels, making it more difficult to see what was going on in dark scenes.

There's no 3D support, which is unusual, but we don't miss this gimmicky feature. You do get plenty of ports, including three **HDMI** ports as well as **SCART**, **component** and **composite** connectors. There are also two USB ports, an **Ethernet** connector and an **optical audio** jack. The built-in speakers were surprisingly good. Dialogue was crystal clear, although sound effects and music lacked punch. Dedicated film and music fans will want to buy a sound bar or other external speakers. Samsung's smart TV interface feels smooth, thanks to the TV's **quad-core** processor.

Samsung's smart TVs are the only ones that come with apps for every major terrestrial TV catch-up service (at least until Sony's YouView models arrive this summer). There are also apps for Netflix, Amazon Instant Video, Blinkbox,

SPECIFICATIONS

40in LED TV • 1920x1080 pixel resolution • 4x HDMI; 2x USB2 • 1x component • 1x composite • 1x SCART • 1x Ethernet • Wi-Fi • Freeview HD • 578x907x196mm • 9kg • One-year warranty www.snipca.com/15700



Spotify and YouTube, so there's no shortage of entertainment.

If you'd rather watch your own videos, switch to the Multimedia panel in the smart TV interface. From here you can play videos and music stored on a USB stick, or from a PC, smartphone, tablet or **NAS** on your home network. We do wish the interface here was better designed, though. The icons for USB sticks and other connected devices are crowded out by panels for content from YouTube and other online video services – an odd and annoying design decision. In any case, we didn't have trouble playing any of our video and audio files.

Overall, the UE40H5500 is an excellent TV. You'll have to tweak the settings to get the best picture, but its image quality is better than other, more expensive TVs we've tested. While its smart TV interface could be better designed, it nonetheless has an unrivalled selection of online video content.

VERDICT: Great picture quality and good smart-TV features make Samsung's UE40H5500 a bargain

★★★★★

ALTERNATIVE: Sony KDL-42W705B £429 A slightly larger 42in TV with even better picture quality, but it doesn't have apps for all the terrestrial TV catch-up services



The best... Accessories

Allocacoc PowerCube ReWireable USB

£16 from www.snipca.com/15844

A portable cube-shaped gangplug with four power sockets and two USB ports. It's removable and uses a standard kettle lead connection so you can easily use a foreign plug or power lead when travelling.



Acqualia Souolver

£4 from www.snipca.com/15845

A calculator app for iOS and Mac OS X that lets you solve fiddly arithmetic such as '15% of 75,000 + 22.5% of 54,000' simply by typing that text into its notepad-style interface.



Creative Sound Blaster Jam

£40 from www.snipca.com/15847

This budget pair of wireless headphones sound surprisingly good. Although bass was merely okay, music otherwise sounded well balanced and clear. It connects to your mobile device via Bluetooth and to your computer via USB.



Tuitive CameraSim

£1.49 from www.snipca.com/15846

An app that replicates the interface of a typical CSC/DSLR camera so you can learn what the various controls do, and how they affect your photos, without running down your camera's battery. Available for iOS, Kindle Fire, Windows and Mac.



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Scan V1 Value System Home / Office PC

- Intel® Pentium® G3240 processor
- 4GB Corsair DDR3 1333MHz memory
- 500GB SATA 6Gb/sec hard drive
- Windows 8.1

£299 Inc VAT

The V1 is a very capable entry-level system perfect from basic home/office tasks. It's based around the dual-core Intel® Pentium® G3240 processor, 4GB of RAM plus a 500GB hard disk.



OPTIONS
CUSTOM
AVAILABLE



Scan V15 Value System Home / Office PC

- Intel® Core™ i5 4460 processor
- 8GB Corsair DDR3 1600MHz memory
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£489 Inc VAT

The V15 ups the ante by including a quad-core Intel® Core™ i5 4460 processor, so it makes light work of office and multimedia applications.



OPTIONS
CUSTOM
AVAILABLE



Scan G20 Value System Gaming PC

- Intel® Pentium® G3240 processor
- 8GB Corsair DDR3 1600MHz memory
- 2GB NVIDIA GeForce GTX 750 Ti SSC
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£489 Inc VAT

Thanks to its dual-core Intel® Pentium® G3240 processor and NVIDIA GTX 750 Ti SSC graphics card the G20i is our most affordable gaming PC. It even includes surround sound!



OPTIONS
CUSTOM
AVAILABLE



Scan G30i Value System Gaming PC

- Intel® Core™ i5 4460 processor
- 8GB Corsair DDR3 1600MHz memory
- 2GB NVIDIA GeForce GTX 760 SC ACX
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£685 Inc VAT

The combination of quad-core Intel® Core™ i5 4460 processor and NVIDIA GeForce GTX 960 SSC ACX graphics card ensures that the G30i can play any game you throw at it.



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- Intel® Core™ i3 4160 processor
- 8GB Corsair DDR3 1600MHz memory
- 2GB NVIDIA GeForce GTX 750 Ti
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1
- 3 Year Premium Warranty

£559 Inc VAT

The Scan 3XS Gamer is an affordably-priced gaming rig that includes a dual-core Intel Core i3 4160. Also included in the default spec is a 2GB NVIDIA GeForce GTX 750Ti graphics card, 8GB of 1600MHz Corsair Vengeance DDR3, a Asus H81 motherboard and 1TB hard disk.



Scan 3XS Gamer 20i Gaming PC

- Intel® Core™ i7 4790 processor
- 8GB Corsair DDR3 2133MHz memory
- 4GB NVIDIA GeForce GTX 970 SC ACX
- 1TB Seagate HDD
- Windows 8.1
- 3 Year Premium Warranty

£1054 Inc VAT

The 3XS Gamer 20i is a super-fast gaming PC thanks to its combination of quad-core Intel Core i7 4790 CPU running at 3.6GHz with added Hyper-Threading plus a 4GB NVIDIA GeForce GTX 970 graphics card. These components are installed in an Asus Z97-K motherboard along with a 1TB hard disk.



3XS Graphite LG157 Gaming Laptop

- Intel® Core™ i7 4720HQ processor
- 8GB Corsair DDR3 1600MHz memory
- 2GB NVIDIA GeForce GTX 960M
- 15.6in 1,920 x 1,080 screen
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£935 Inc VAT

The LG157 is a 15.6" mid-range gaming laptop that includes a NVIDIA GeForce GTX 960M graphics card plus an Intel Core i7 4720HQ CPU, up to 16GB of RAM and multiple hard disks and SSDs. The LG157 is ready for next-day delivery in late March and is protected by a 2 Year Premium Warranty.



3XS Graphite LG1720 Gaming Laptop

- Intel® Core™ i7 4720HQ processor
- 8GB Corsair DDR3 1600MHz memory
- 3GB NVIDIA GeForce GTX 970M
- 17.3in 1,920 x 1,080 screen
- 1TB SATA 6Gb/sec hard drive
- Windows 8.1

£1159 Inc VAT

The LG1720 is a 17.3" high-end gaming laptop that includes a choice of powerful NVIDIA GeForce GTX 970M or 980M graphics card, ensuring silky smooth frame rates in all games. The LG1720 is ready for next-day delivery and has a 2 Year Warranty.



Scan Computers recommends Windows.

3XS Custom Series

Our 3XS Custom Series is a range of computers designed to offer the best performance for a variety of applications, with a particular focus on games. We build Custom Series PCs to order, so we can configure and tailor make an individual PC just the way you want it. We can also overclock the processor, so you get a faster PC without a substantial increase in price. All 3XS Custom Series PCs are covered by a three year warranty as standard with the first year on-site.



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winning 3XS team



3 Year
Warranty

3XS SYSTEMS

Reviews

PC | £550 from www.snipca.com/15774

Wired2Fire Diablo Ultima

A fast and affordable PC – with one critical flaw

The best PCs tend to offer a good balance between performance, expandability and price, but Wired2Fire has rewritten the rules with its latest PC. The Diablo Ultima costs just £550 (albeit without a monitor, keyboard and mouse), but it provides the sort of superior performance we'd usually expect in a PC costing significantly more. It sounds too good to be true and – in one crucial aspect – it is.

The plain black casing houses a fast 3.2GHz Intel Core i5 4460 **quad-core processor** and 8GB of memory. The processor made short work of our benchmark tests, so it'll definitely handle demanding programs for some time to come. 3D performance was particularly impressive. The AMD Radeon R9-270X graphics card tore through our 3D-graphics tests, producing smooth, detailed visuals. It only struggled when faced with the very latest resource-sapping games.

You can also use the graphics card to speed up non-gaming software such as Adobe Photoshop or Roxio Creator. There's the option to attach up to three monitors, as long as one of them is via

DisplayPort. Buy a DisplayPort hub (£83 from www.snipca.com/15773) and you can connect a whopping six monitors.

The Diablo Ultima can of course be enhanced as your needs change in future, but it has fewer upgrade options than many other PCs at this price. There are only two memory slots, so if you want to fit the maximum 16GB, you'll have to dispose of the 8GB already fitted.

In theory, you can add a Blu-ray drive, a storage card reader and another two hard drives or **SSDs**. In practice, you'll have to be far more selective about which internal storage upgrades you add because there are only two **SATA2** ports available (the two **SATA3** ports are taken up by the DVD writer and 1TB hard drive). In any case, if you're planning to install an SSD, it makes sense to plug this into one of the SATA3 ports and relegate the DVD writer (which doesn't need the extra speed provided by SATA3) to one of the SATA2 ports.

You could get around this SATA shortage by plugging a SATA card into the **PCI Express** slot. Although there are three of these slots, only one is actually usable as the other two are blocked off by the large graphics card. Having only one free PCI slot is annoying, but not as limiting as it once was because there are now USB versions of almost every PCI peripheral



you could want.

The Diablo Ultima's critical flaw is the noise it generated whenever it was running demanding tasks, which was audible even above the **servers** and air conditioning of our test labs.

This is a real shame, but it's the only major flaw in an otherwise reasonably priced, powerful PC. If you want performance above all else, this is a good-value computer.

VERDICT: If you can put up with its racket, you'll get a very powerful PC for not much money



ALTERNATIVE: Palicomp AMD Kaveri Evolution £500 If you don't need the fastest performance, this complete PC system is good value



SPECIFICATIONS

3.2GHz Intel Core i5 4460 quad-core processor • 8GB memory • 1TB hard drive • 2GB AMD Radeon R9-270X dedicated graphics card • Windows 8.1 • 430x200x455mm • Three-year warranty
www.snipca.com/15774

WHAT SHOULD I BUY? We solve your buying dilemmas

What's the best tablet for Skyping?

Q I would like to buy a tablet so that I can email and Skype my family when I'm away on holiday. Which tablet would you suggest?

Ann Ewer

A We'd recommend an iPad or Android tablet rather than a Windows 8.1 tablet. Although any tablet can handle basic email and video chat, there is a wider range of alternative email apps available for iOS

and Android, which is useful if the built-in default email app doesn't suit your needs.

Video-chat quality obviously depends not only on the quality of your tablet's front-facing camera, but also your internet connection and lighting conditions. Even so, some tablet's cameras are significantly better than others.

Of the tablets we've reviewed recently, the iPad Air 2 (£399 from www.snipca.com/14309) and the Sony Xperia Z3



Tablet Compact (£298 from www.snipca.com/15814) easily have the best front-facing cameras with sharp focus and accurate colours. In contrast, the Tesco Hudl 2 captured footage with such an orange cast that our faces looked jaundiced, while the focus on the Amazon Kindle Fire HDX 8.9's camera was far too soft.



Do you need advice on what you should buy? Email us at letters@computeractive.co.uk

PC MONITOR | £621 from www.snipca.com/15724

Philips BDM4065UC

A gigantic 4K monitor

4K screens have a minimum resolution of 3840x2160 pixels – four times the number found in your average 1920x1080-pixel HD TV and PC monitor. The benefit of using a 4K monitor like Phillips' BDM4065UC with your PC is immediately clear if you like to do several things at once. Four times more pixels means you get four times more space for all your windows and programs, which makes multi-tasking a breeze. Moreover, with all those extra pixels squeezed in, you'll see high-resolution photos and videos in the minutest detail. Photos taken on an eight-megapixel camera, for example, will display on the BDM4065UC in their entirety, with no need to zoom in and out.

Bear in mind that at 40in, the Philips BDM4065UC is massive, so you'll need plenty of room on your desk. What's more, you'll want to push your chair further back than normal to view this monitor properly. Otherwise, you'll be constantly swivelling your head from side to side to see anything at the corners/edges of the screen. We'd recommend a distance of two to three feet away when watching films and playing games, and slightly more when working. Image

SEE MORE ON 4K

This diagram, laid over an eight-megapixel photo, illustrates the amount of working space 4K resolution gives you. At 100 per cent magnification, you would see the entire image on the 4K Philips BDM4065UC monitor. The red box represents what you would see on a typical 1080p monitor. The yellow box represents what you would see on a 1366x768 monitor (the most common resolution on laptops).



quality, as you'd expect, is excellent. Colours are bright and vibrant, while contrast levels are sky high, meaning minute detail is visible in dark shaded areas of photos and film scenes. Blacks are satisfyingly deep and inky, while editing photos and videos is a joy. Games look great, as long as you have a PC with a powerful graphics card that can play modern 3D games in 4K at smooth frame rates.

To use this monitor at 4K resolution, your computer will need a DisplayPort or Mini DisplayPort connector. You can use HDMI ports, but only if they support the HDMI 1.4 standard, and even then you'll have to put up with a jerky refresh rate of 30Hz, which makes videos unwatchable. At 60Hz, DisplayPorts provide a far smoother viewing experience.

The basic design of the metal stand doesn't allow for much in the way of adjustment, but given the sheer size of this monitor, it matters little. The four-port USB 3.0 hub round the back is very handy, while the built-in stereo speakers are loud. The speakers do lack bass, however, so high-quality external speakers or headphones are a must.

The on-screen menus are controlled by a small joystick on the back of the monitor. It's a bit fiddly at first, but once you get the hang of it you can use it to adjust colour, tweak the brightness and

even control the picture-in-picture mode.

While the BDM4065UC is the cheapest 4K monitor of this quality we've tested, it's still pretty expensive. The benefits of 4K are so compelling however, that we predict the vast majority of monitors will have 4K screens soon. Although you could buy a 40in 4K TV for less than £600, image quality and colour accuracy won't be as good, and finding one with DisplayPort connectors would be a challenge. If you can afford it and your PC has the appropriate ports, the Philips BDM4065UC is a great buy for those wanting to join the 4K revolution.

SPECIFICATIONS

40in • 3840x2160-pixel resolution • 2x HDMI 1.4 ports • 1x VGA port • 1x DisplayPort • 1x Mini DisplayPort • 589x904x213mm (HxWxD) • 10kg
www.snipca.com/15725

VERDICT: An impressively large and vibrant display, but only for those with lots of desk space and deep pockets



ALTERNATIVE: Samsung S32D850T £440 A cheaper, smaller non-4K 32in monitor, but its 2560x1440 resolution provides more working space than 1080p and it has stunning image quality



Reviews

ROUTER | £53 from www.snipca.com/15710

Asus RT-AC52U

A remarkably cheap 802.11ac router and USB adapter bundle

The Asus RT-AC52U is an unusual router in more ways than one. Despite its low price, this router is **802.11ac**-capable and even comes with an 802.11ac adapter for your computer. It's attractive too – the crosshatch patterning catches the light in such a way that it sparkles as you walk past. There are numerous blue lights that shine through the crosshatch intersections, appearing as little glowing crosses (see image).

It comes with a removable stand so you can position it upright. Alternatively, you can lay it flat or mount it to a wall. Setting it up is straightforward, but you'll need to enable wireless security straight away as it's turned off by default. Basic parental controls are built-in – you can restrict internet access to certain times, but you can't block access to web sites.

“A good budget router with a speedy 802.11n performance and extra features”

The RT-AC52U can be used with cable or fibre modems, but its **Ethernet** ports only have a maximum speed of 100Mbps, which could be a problem in the future with super-fast broadband connections that exceed this speed. Interestingly, you can use two broadband connections with this router simultaneously. You can then increase your download speeds or have one connection automatically take over from the other in the event that it stops working. Few homes will have the luxury of two internet connections, but this router will be very attractive if you live in one that does.

Unusually you can plug a 3G/4G USB dongle into the USB port, so you can use it as a backup internet connection should your main broadband service be interrupted. Alternatively, you can also share a printer or external drive plugged into the USB port with all your

networked computers.

There are even more extra features, most of which we would only expect to find on a **NAS**. Although the router should be able to act as an iTunes server – streaming media files stored on USB drives to your iOS devices or iTunes on a PC – we couldn't get this to work. One feature that did work well was the ability to access files **remotely** away from home, wherever we had internet access.

Asus had to cut corners somewhere to keep the price low, though, and it chose to compromise on performance. The RT-AC52U has a theoretical top speed of 433Mbps in 802.11ac mode – noticeably less than the 1,300Mbps of most other 802.11ac routers. When using the included USB adapter with our laptop, we achieved speeds of 88.1Mbps at 10 metres and 87.5Mbps at 25. These would be very good speeds for a **802.11n** router, but other 802.11ac routers we've tested have been at least twice as quick. Although more than good enough for internet access, it's not ideal for transferring lots of files between your own computers.

When used in 802.11n mode, this router is **dual-band** capable. We got speeds of 39.5Mbps at 10 metres when we used our laptop's built-in 802.11n adaptor on the 2.4GHz band. This fell to 26.2Mbps at 25 metres. On the 5GHz band this increased to 90.1Mbps at 10 metres and 60.5Mbps at 25 metres. These are good results.

Although its 802.11ac speeds are

SPECIFICATIONS

Dual-band 802.11ac/a/b/g/n • 4x 10/100Mbps Ethernet ports • 1x cable/fibre modem port • 77x187x145mm (HxWxD) • One-year warranty
www.snipca.com/15711



disappointing, the RT-AC52U is still a good budget router due to its speedy 802.11n performance and extra features. If you want the very best speeds, though, either for copying files and/or for super-fast broadband connections in the future, then it's worth buying a more expensive, but far faster 802.11ac router such as Trendnet's TEW-812DRU (see our review, Issue 427).

VERDICT: Disappointing 802.11ac performance, but an otherwise good-value budget router

★★★★☆

ALTERNATIVE: Trendnet TEW-812DRU **£100**
Twice as expensive, but also twice as fast when used with its own 802.11ac adapter (sold separately)



DATA SIM | £40 for 30 days from www.snipca.com/15792

Cellhire 10GB Data SIM (Spain)

Banish your roaming worries in Spain – and elsewhere

Using the internet abroad can cost the earth if your mobile network doesn't offer a good **roaming** deal. Buying an international SIM card for a fixed price upfront before you leave can be a much more cost-effective way of getting online than buying daily passes from your current network provider.

Cellhire 'sells' its international SIM cards as a standalone product or bundled with a portable router, although it's more akin to renting than buying. Once you return from your trip abroad, you post back your SIM (and router, if applicable) using the included pre-paid envelope.

Cellhire's SIM cards are available for 31 countries from Argentina to Switzerland. We tested Cellhire's 4G 10GB Spanish Data SIM during a recent trip to Barcelona. The networks used by Cellhire varies from country to country. In Spain, Cellhire relies exclusively on Vodafone. Using SpeedTest.net, we found that download speeds were reasonably consistent across the city, ranging from 12.14Mbps in the city centre to 16.4Mbps in a convention centre near the airport in the south of the city. Upload speeds, on the other hand, varied, starting at just 0.62Mbps at the convention centre and going right up to 4Mbps in the heart of the city.

These speeds were more than sufficient for checking emails, uploading photos and finding our way around Barcelona using Google Maps. However, we did have connection problems in areas where a lot of other people were using portable routers or their smartphone's internet-sharing feature. Here, our laptop either couldn't connect to our portable router at all or we had to make a connection using USB. Such challenging wireless conditions are rare though.

The main problem with Cellhire's Spanish tariff is that it isn't cheap. The



30-day 4G SIM with a 10GB data allowance costs £40. You can add another £10 for a 3G-only portable router, rising to £34 extra for the 4G model.

In April, Three is due to launch its Spanish Feel at Home service, which lets you use the internet at no extra cost as long as you don't exceed your normal data allowance. A one-month unlimited data SIM-only plan (capped at 25GB when used abroad) costs just £25, for example. And if you also want a portable router, Three's plans still represent better value. A 10GB one-month plan costs £30 upfront plus £16.02 per month – and you get to keep the router. The catch with Three is that you'll have to remember to cancel your contract with 30 days' notice, but this is a small price to pay for better-value internet roaming.

VERDICT: Fast and convenient, but not as cheap as Three

★★★★☆

ALTERNATIVE: Three Broadband (10GB 1-month contract) **£15 per month** Three's Feel at Home roaming deal is available in a smaller number of countries (including Spain), but is much better value



SPECIFICATIONS

Standard, micro and nano SIM cards available • Locked to your chosen country www.snipca.com/15792

COMING SOON

APRIL 2015

Panasonic is targeting serious photographers with its CM1 Android phone.

The phone's camera sensor will apparently rival those found in dedicated cameras, but will be pricey at £799 without a contract.



SUMMER 2015

Sony has announced that all but one model in its 2015 range of smart TVs will use Google's Android TV interface and have YouView built in.



SUMMER 2015

Microsoft has announced that Windows 10 will be available "this summer" with a new web browser (currently named Spartan) taking the place of Internet Explorer (see page 6).



AUTUMN 2015

Humax has announced it will make Freeview Play-branded PVRs. These set-top boxes will have catch-up TV apps and built-in Wi-Fi in addition to video recording.



NEXT ISSUE

ON SALE
15 April



Dell Venue 8 7000

An Android tablet that measures objects with its camera

HP Stream 11
HP's £199 Windows 8.1 laptop



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Our pick of products that have won the Buy It award

LAPTOP

NEW ENTRY

Asus X555LA-XX290H
£317 from www.snipca.com/15764
Tested: Issue 446



Asus has made all the right choices with this budget Windows 8.1 laptop. Its comfortable keyboard, fast performance, respectably lengthy battery life and bright screen are all the more impressive given its low price.

ALTERNATIVE **Asus Chromebook C200**
A cheap Chrome OS ultra-portable laptop with a bright screen, lengthy battery life and a great keyboard.
£190 from www.snipca.com/15269

DESKTOP PC

Palicomp AMD Kaveri Evolution
£500 from www.snipca.com/11804
Tested: Issue 422



A budget PC with a fast overclocked processor. It also has good upgrade potential and comes with a surprisingly good 24in monitor, as well as a quality USB keyboard and mouse.

ALTERNATIVE **Chillblast Fusion Rhino**
A very powerful and compact PC sold without a keyboard, mouse or monitor.
£899 from www.snipca.com/15252

TABLET

Apple iPad Mini 2
£239 from www.snipca.com/14467
Tested: Issue 416



Apple's mini tablet from 2013 is now available at an even lower price. The only thing it lacks compared with this year's Mini 3 is a fingerprint sensor and the option of lots of built-in storage. Otherwise, it's an absolute bargain.

ALTERNATIVE **Apple iPad Air 2 A**
A thin and lightweight 10in tablet with a fingerprint reader, an excellent screen and peerless selection of apps. £399 from www.snipca.com/14309

PHONE

Motorola Moto G 4G
£150 (without contract) from www.snipca.com/14162
Tested: Issue 432



Motorola's budget Android smartphone is an absolute steal. It's very responsive, well made, fast and has a good screen. Plus, it's now been updated with 4G and a microSD card slot.

ALTERNATIVE **Apple iPhone 5s**
An excellent smartphone with a great camera and performance. £459 without a contract from www.snipca.com/10171

DIGITAL CAMERA

PRICE DROP

Panasonic Lumix DMC-GF6
£280 from www.snipca.com/12607
Tested: Issue 405



This compact interchangeable-lens camera is small and reasonably priced, yet it has well-designed controls, a wide range of available lenses and shoots excellent quality photos. The GF6 really is unbeatable value.

ALTERNATIVE **Sony A5000** A rival CSC with better low-light performance, although its controls and range of available lenses aren't quite as good.
£259 from www.snipca.com/15854

E-READER

Kobo Aura H20
£140 from www.snipca.com/15490
Tested: Issue 435



A waterproof e-reader with an easy-to-read, high-resolution touchscreen that's easy on the eyes and great for reading in the bath. There's no 3G version, but, unlike the Amazon Kindle, you can buy ebooks from independent retailers that use the ePub format.

ALTERNATIVE **Amazon Kindle Voyage**
The best Kindle yet, with a sharp, extremely responsive touchscreen and easy-grip design. £169 from www.snipca.com/14451

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SECURITY SOFTWARE

Kaspersky Internet Security 2015

£17.99 from www.snipca.com/14212

Tested: Issue 427



Kaspersky Internet Security 2015 has won our past four antivirus tests – an unprecedented set of results. The 2015 edition is available at an exclusive reader discount on our Software Store. Click the link above for a one-device licence, or buy a three-device licence for just £39.99 at www.snipca.com/14221.

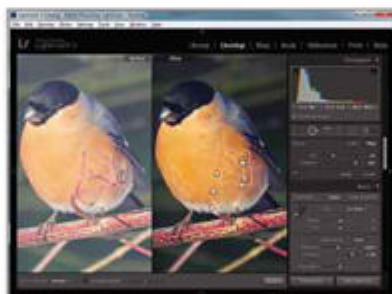
ALTERNATIVE: Norton Internet Security 2014 An affordable program, but sometimes blocked legitimate software. £30 from www.snipca.com/15115

PHOTO EDITING

Adobe Photoshop Lightroom 5

£98 from www.snipca.com/14348

Tested: Issue 402



Lightroom is a consistently elegant, powerful and fast photo-management program packed with sophisticated features. If you want to keep on top of your photos and make them look great, there's no better software to do it with.

ALTERNATIVE: Adobe Photoshop Elements 13 A fast and polished photo-editing program with excellent advanced editing tools. £59 from www.snipca.com/14731

COMPETITION

Win 1 of 2 Crucial MX200 500GB SSD

Crucial's MX200 is the company's second SSD to earn a five-star Buy



It! review in *Computeractive* (see page 20). It is one of the fastest SSDs we've ever tested, copying large files at a top speed of 575MB/s. It's also very affordable at just 34p per gigabyte. To enter, email your address to acomp@dennis.co.uk by midnight 14 April.

The Crucial MX200 500GB SSD is available now priced £169. For more information visit uk.crucial.com, 'like' Crucial's Facebook page (www.facebook.com/CrucialMemory) and follow Crucial on Twitter @crucialmemory.

PC MONITOR

Dell UltraSharp U2412M

£214 from www.snipca.com/14610

Tested: Issue 378



An exquisite monitor with superb image quality, an adjustable stand, a high resolution and even a built-in USB hub. It costs a little more than other monitors, but it's money well spent. It's easily the best value monitor we've seen and is the one by which all others are judged.

ALTERNATIVE: AOC i2360PHU A good quality budget 23in monitor that's easily adjustable and has a built-in USB 2.0 hub too. £153 from www.snipca.com/15274

SECURITY CAMERA

Y-cam HomeMonitor HD

£147 from www.snipca.com/11646

Tested: Issue 420



A home-security camera that's well priced and easy to set up. Plus, it has great picture quality, useful apps and there's no need to subscribe to any extra services. It's a worthy successor to the original HomeMonitor, our previous favourite security camera.

ALTERNATIVE: D-Link Wireless N Day & Night Camera A good-value security camera with excellent night vision. £85 from www.snipca.com/15275

ROUTER

Trendnet TEW-812DRU

£116 from www.snipca.com/15855

Tested: Issue 427



An incredibly fast 802.11ac router that's also one of the cheapest we've seen. It's superb and it's the router to buy if you're ready to make the jump to 802.11ac.

ALTERNATIVE: Linksys WRT1900AC More expensive, but even faster and with loads of features too. £200 from www.snipca.com/14950

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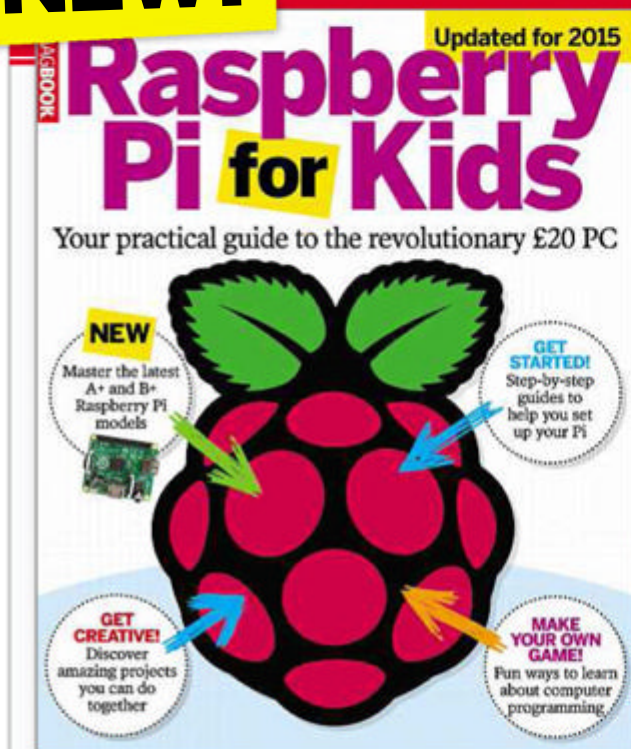
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NEW!

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The Raspberry Pi is the incredible £20 British computer that's taking the world by storm. It's ideal for children of all ages to experiment, play games and learn valuable skills. We've updated this 148-page book for 2015 to include instructions on mastering the new Pi models (A+ and B+), helping children learn the coding skills needed to excel at the new school curriculum. We take you step by step through the basics of setting up and configuring the Pi and introduce many fun projects for families.

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Workshops & Tips

PULL OUT
& KEEP
Issue 446

14 pages of easy-to-follow workshops and expert tips

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38 Recover your files when Windows crashes

40 Browse the web faster than ever
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PLUS

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44 Phone & Tablet Tips
46 Make Windows Better

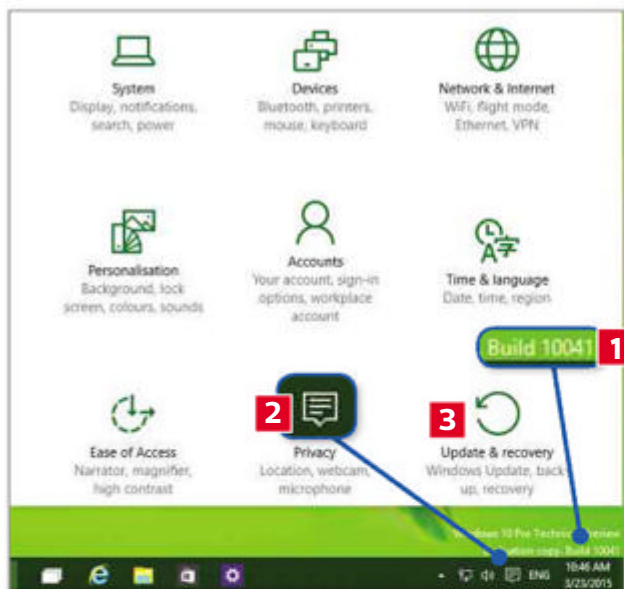
47 Make Office Better
48 Secret Tips For... VirtualBox

Try Word and Excel in Windows 10 for free

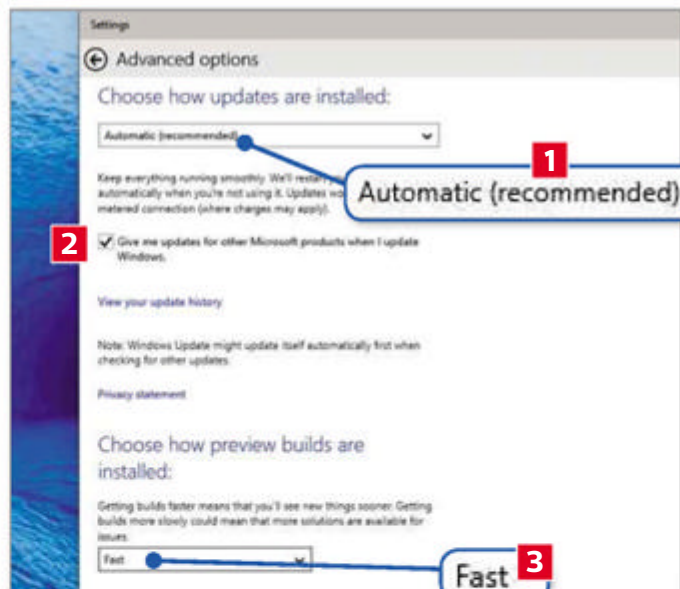
What you need: Windows 10 Technical Preview **Time required:** 2 hours

Microsoft has released new apps for Word, Excel and PowerPoint (not to be confused with Office 2016) for the Windows 10 Technical Preview. Even though these apps are mainly optimised for touchscreen devices such as tablets, we like the fact that they

have bigger tabs than previous versions, making them much easier to use on a PC. We'll show you how to create and edit documents and spreadsheets, which you can then access on any device by syncing them with OneDrive.

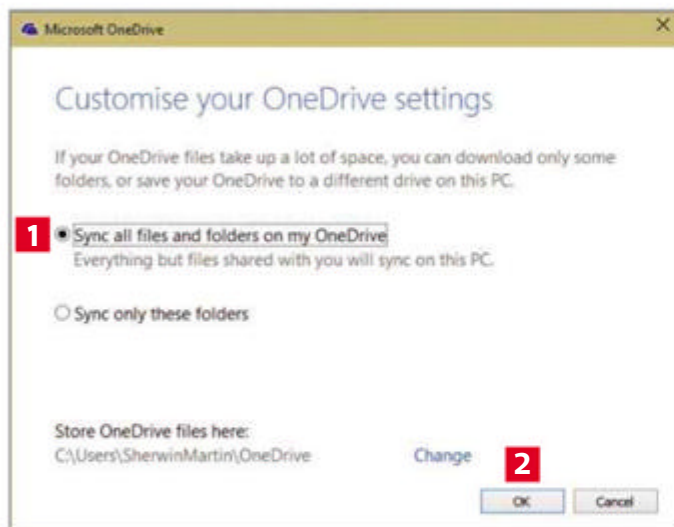


STEP 1 Refer back to our lead Workshops in Issues 443 and 444 if you still haven't installed the Windows 10 Technical Preview. You won't be able to install the new apps unless you update your PC to the latest version of the Windows 10 Technical Preview (Build 10041). Your build number is displayed at the bottom right of your screen **1**. To update your version of Windows 10, click the notification icon **2** then 'All settings'. Now click 'Update & recovery' **3** then click the 'Advanced options' link at the bottom.

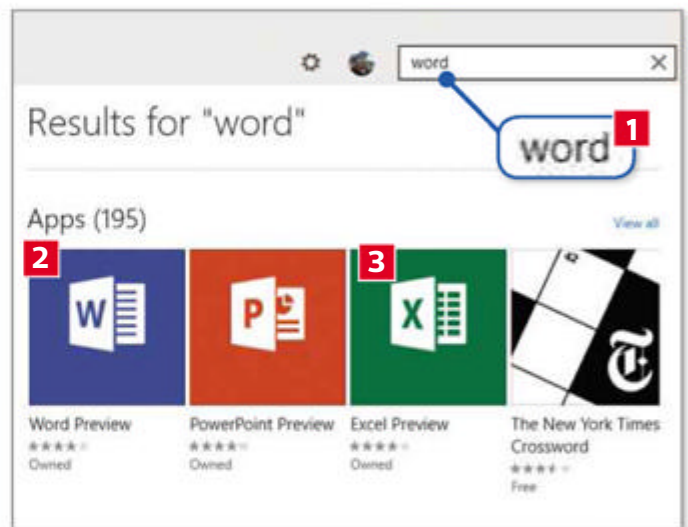


STEP 2 Choose 'Automatic (recommended)' **1** from the dropdown menu at the top, tick the box below **2** (which updates all Microsoft products with Windows), then select Fast from the dropdown menu at the bottom **3**. Doing this lets you test new features as soon as they're released (but read our News story on page 6 first). Now click the top-left Back button, then 'Check for updates'. Windows will now download the latest Preview. It can take anything up to a few hours depending on your internet connection. When that's finished, Windows will restart several times before automatically booting to the latest version.

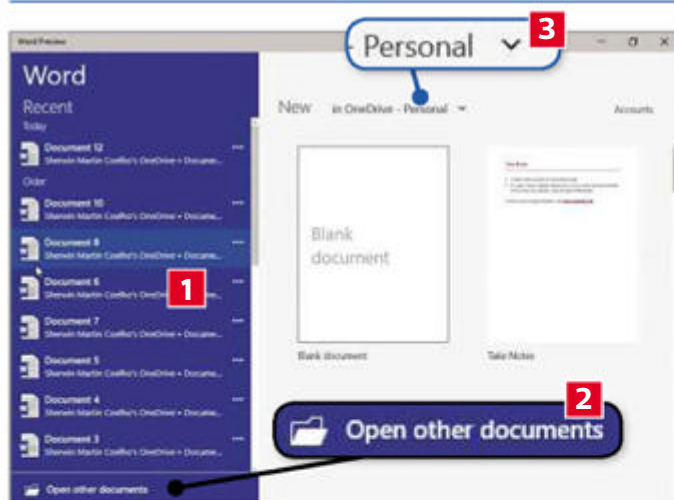
Workshops



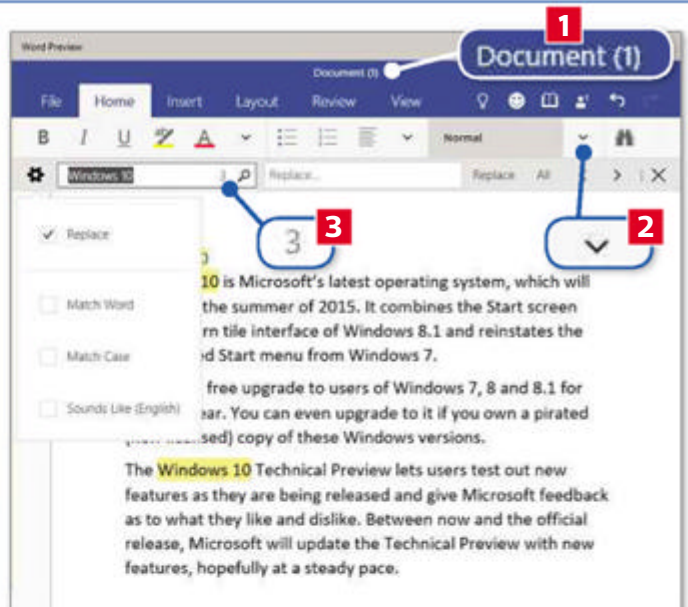
STEP 3 Before installing the apps, you should set up OneDrive so that you can edit and save any Office file there. Click the search bar at the bottom left, type **onedrive**, then press Enter. Now select 'Sync all files and folders on my OneDrive' **1**, then click OK **2**. Click the OneDrive icon in the notification area to see your sync progress. When that's done, click the icon, then click the 'Open your OneDrive folder' link to access your files.



STEP 4 To install the apps, click the Start button, the 'Store (Beta)' tile, type **word** in the search box at the top right **1**, then press Enter. You'll now see all three apps. Click Word Preview **2**, then Install. When that's finished installing, click the top-left Back button, Excel Preview **3**, then Install. Repeat to install PowerPoint. We'll first show you how to use Word. Click the search bar at the bottom of your PC, type **word** and click Word Preview to open it.

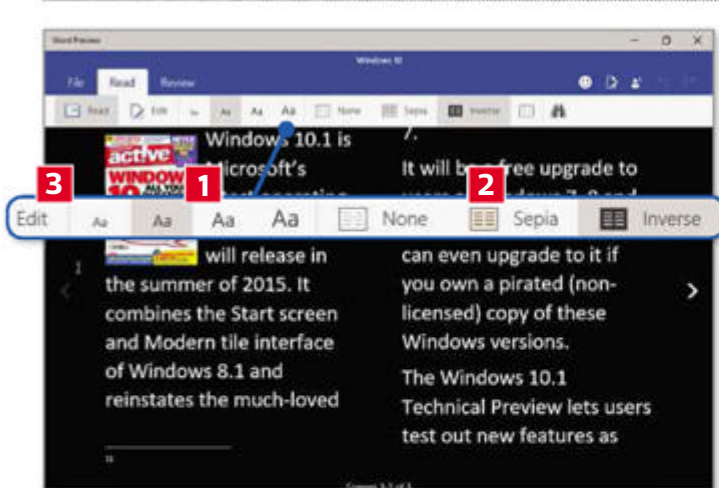


STEP 5 Keep clicking the right arrow (to browse through the instructions) until you see 'Use Word for free', then click it. Because you've synced your OneDrive account, you'll see a list of all your Word documents in OneDrive on the left **1**, which you can click to open. Click 'Open other documents' **2** to open documents saved on your PC or external drive. Documents you create are saved to OneDrive, but if you want to save them in a folder on your Windows 10 PC instead, click the 'in OneDrive - Personal' dropdown menu **3** and select 'This PC > Documents'.

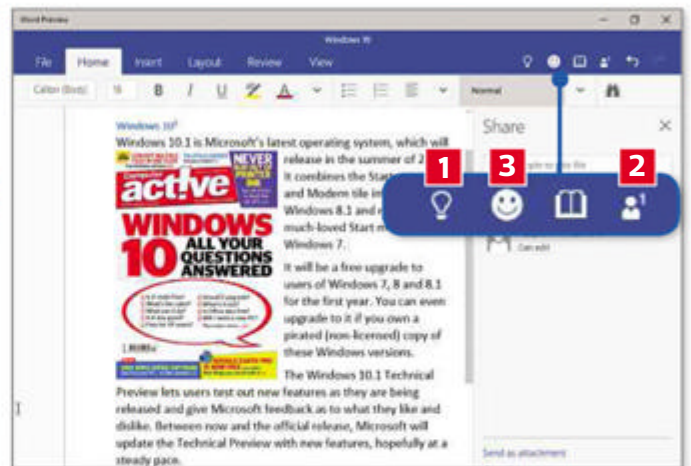


STEP 6 Click 'Blank document' to start creating one. Now, click 'Document (1)' **1** at the top and rename it. The Home tab features the usual font and formatting options at the top left. Click the Normal dropdown menu **2** to see different styles (Headings, Subtitles and so on) you can apply to your text. To search for a particular word in your document, click the top-right Binoculars icon to see a bar with various options. Type the word to see all instances of it highlighted in your document and the number of times it appears **3**. Click the top-left cog icon to narrow your search or replace that word.

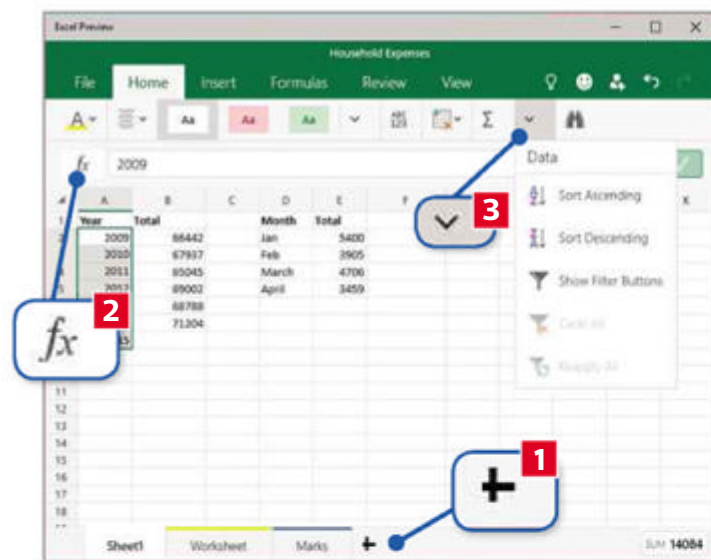
Try Word and Excel in Windows 10 for free



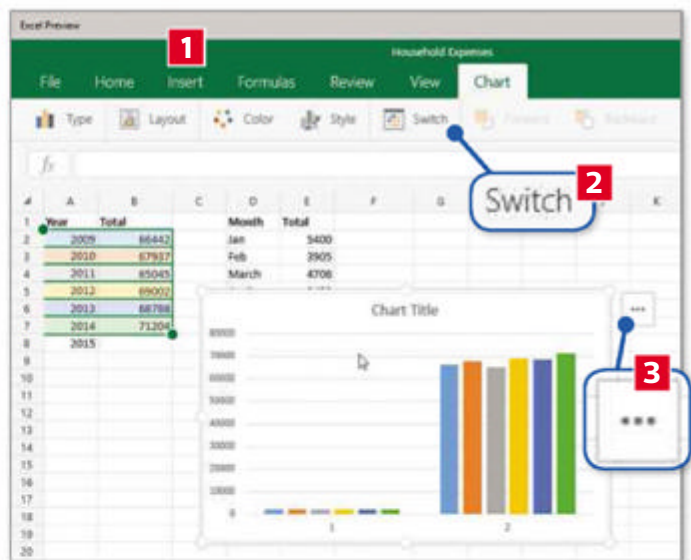
STEP 7 Microsoft has added a Reader Mode, which is useful if you want to read your document like a book (with two columns, while using left and right arrows to navigate). You can change your font size and the colour of this mode with one click. Click the Read (book) icon at the top left to enter this mode, then click the three dots at the top right to modify your document. You can choose from four font sizes **1** and three colours **2**. To continue editing your document in normal mode, click Edit **3**.



STEP 8 If you can't find a certain editing feature, click the lightbulb icon **1** and type your query (such as **create header** or **insert link**). Click the relevant option in the list that appears to see those tabs (or menus). It's easy to share the documents you've created and control whether others can then edit or view it. Click the Person icon **2**, then click 'Get a link' at the bottom. You'll see two options: 'Create an edit link' and 'Create a view-only link'. Select the one you want to get a link to your file that you can copy and paste using other programs, such as email. To provide Microsoft with feedback about the Word Preview, click the smiley face icon **3**, which opens the Feedback app.



STEP 9 Open Excel by typing **excel** in the search box at the bottom of your PC, then pressing Enter. Navigate through the instructions, then click 'Use Excel for free'. Click 'Blank workbook' or select one of your OneDrive spreadsheets from the left. You only see one sheet by default, but you can add more by clicking the '+' icon at the bottom **1**. Right-click a sheet to see options to rename, colour, hide or delete it. The Home tab lets you format your text and cells. Click the function button **2** to see different categories of formulae (including Financial, Logical and Date & Time). The dropdown menu **3** lets you sort or filter your data.



STEP 10 Excel automatically suggests charts that best represent your data. Highlight the data you want represented on a chart, click Insert **1** then Recommended. You'll see a list of chart types. Select one, then keep clicking Switch **2** until you see one you like. Use the Chart tab to format its type, layout and colours. Click the three dots beside your chart **3** to see options to Cut, Copy, Paste and Delete. ●

Recover your files when Windows crashes

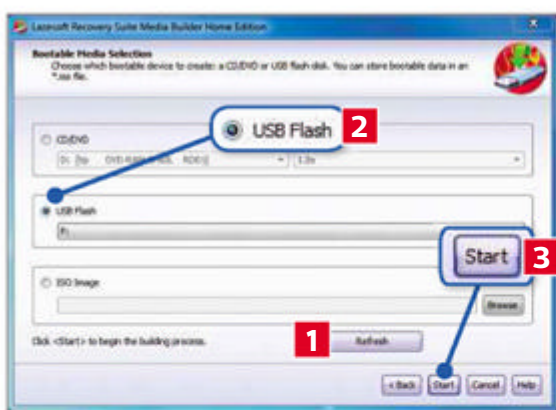
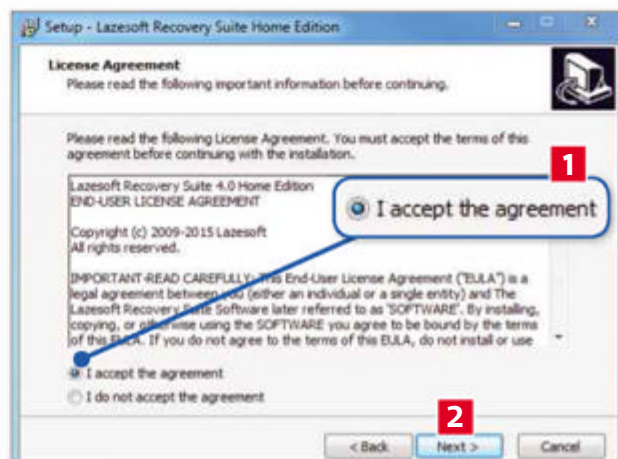
What you need: Lazesoft Recovery Suite; blank USB stick or CD/DVD; external hard drive; Windows XP, Vista, 7, 8 or 8.1 **Time required:** 35 minutes

Computer crashes are not only harmful to your operating system, but can result in loss of data. Lazesoft Recovery Suite Home Edition is a free program that lets you create a bootable drive that you

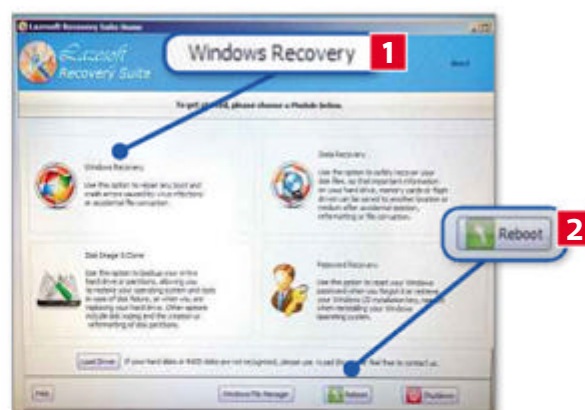
can use to boot into your crashed PC, fix the problems and recover any lost files. The program is packed with features, but has an easy-to-use interface with clear instructions for every task.



STEP 1 Go to www.snipca.com/15830 and click the green Download Now button. Click the downloaded setup file, Run, Yes, Next, select 'I accept the agreement' **1**, click Next (three times) **2**, then Install. Once it's installed, tick 'Launch application', then Finish. You'll see the main Lazesoft Recovery screen with five options.



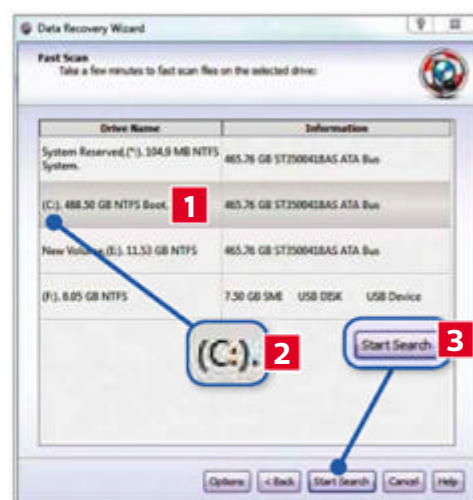
STEP 2 We'll first show you how to create a bootable disc. Insert a blank CD or USB stick into your PC. Click Burn CD/USB Disk in Lazesoft, then Next. Select whether you want to create a CD/DVD, 'USB flash' or ISO Image (that you can later save to an external drive). Click Refresh **1** if your CD/DVD or USB stick doesn't appear immediately. We selected USB Flash **2**. Now click Start **3**, then Yes. The creation process took about seven minutes on our Windows 7 PC. After it's finished, you'll see two links: 'How to boot from USB flash device' and 'How to boot from CD/DVD'. We explain this process in the next step.



STEP 3 The next time your PC crashes, insert your bootable CD/USB stick into it and restart your PC. As it boots, make a note of the brief notification telling you which key to press to access the Boot Menu in your BIOS (F2, on most PCs). Restart your PC and keep pressing that key as it boots. In your Boot Menu, select 'USB drive' as your First/Primary Boot Device, then click Lazesoft Live CD. Your PC will now boot in Safe Mode, displaying the Lazesoft Recovery Suite main window. Click Windows Recovery **1**, then OK. You'll now see a screen with four solutions to common crash problems. If you're unsure which option to choose, select One Click Fix Crash Solution, click the One Click Fix button, then Finish. Close that window, then click Reboot **2**.

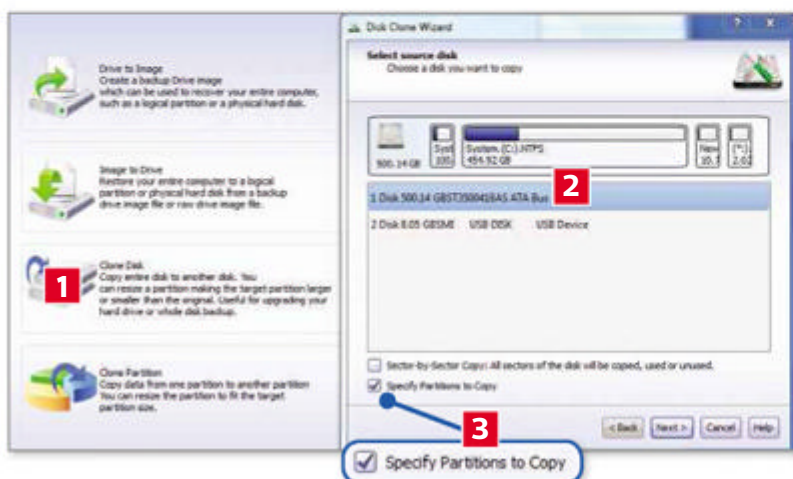
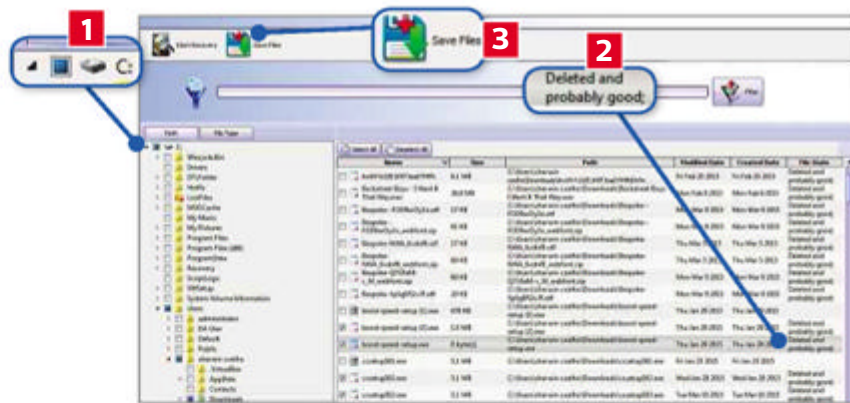


STEP 4 When your PC reboots, you should see the files you may have lost during the crash in their original locations. If you can't find them, it's possible they've been deleted from your PC. Fortunately, Lazesoft's powerful Data Recovery options can help you find and restore files or folders that have been deleted from your PC or external drives (such as USB sticks). It even lets you find and recover files that have been deleted using Shift+Del and those that have been emptied from the Recycle Bin. Open Lazesoft and click Data Recovery to see four scan options.



STEP 5 Each of the scan options works more or less the same way: select the drive you want to scan for deleted items, wait for the scan to complete, then tick the items you want to recover from a list. We'll show you how to use Fast Scan but if you can't find your files using this, then try one of the other (more thorough) options. Click Fast Scan, then select the relevant **partition 1** – the drive letters **2** will correspond to your PC's drive letters. Click Start Search **3** to begin scanning, then OK when the scan has finished.

STEP 6 Next, click the dropdown menu beside the relevant drive letter **1** to see a list of folders that Lazesoft has recovered files from. Click any folder to see its deleted files in the main section. If you see 'Deleted and probably good' **2** in the File State column, it means those files can be recovered. Tick the files you want to recover, then click Save Files **3**. Now select the folder you want to save the recovered files to, then click Select Folder. After restoration, open the folder you chose and you'll see a folder named Recovered Data. Navigate through its sub-folders to access your recovered files.



STEP 7 We'll now show you how to clone an entire partition to an external hard drive. This is handy if you need to quickly transfer or back up data. In the main Lazesoft screen, click 'Disk Image & Clone', Clone Disk **1**, select the drive you want to clone **2**, tick the second box **3**, then click Next. Now untick any partitions on that drive that you don't want to clone, click Next, select your connected hard drive, then Next again. Finally, select 'Fix partitions to entire disk', click Next, Start and OK. You'll need to restart your PC to see your cloned drive. Read tutorials on Lazesoft's other features at www.snipca.com/15839.

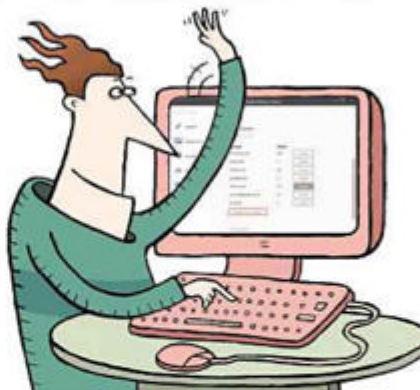
Browse the web faster than ever

What you need: Any web browser **Time required:** 20 minutes

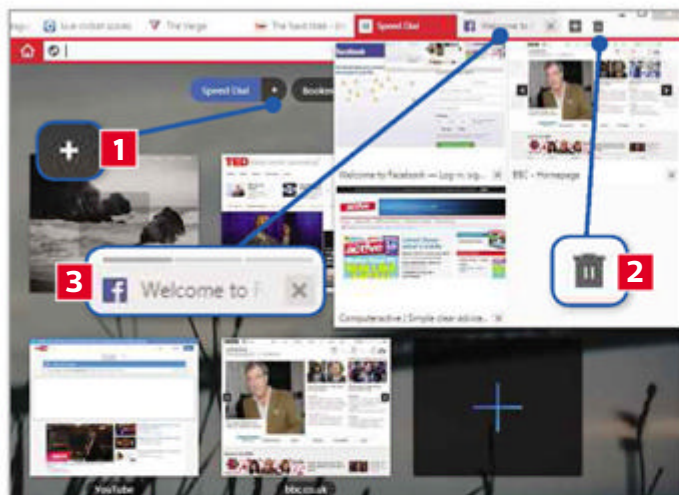
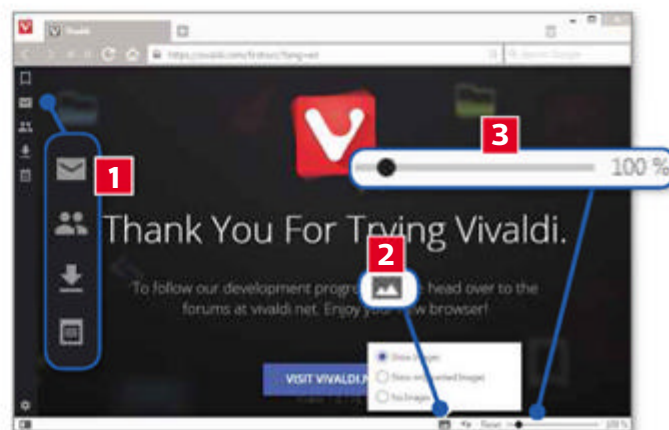
Vivaldi – a new browser created by the co-founder and former CEO of Opera – ‘aims to be the fastest browser in the universe’, according to its website. And in our tests, it did load web pages faster than all the major browsers. It also has a setting that opens web pages without images, which speeds up browsing – most

noticeably if you’re on a slow internet connection.

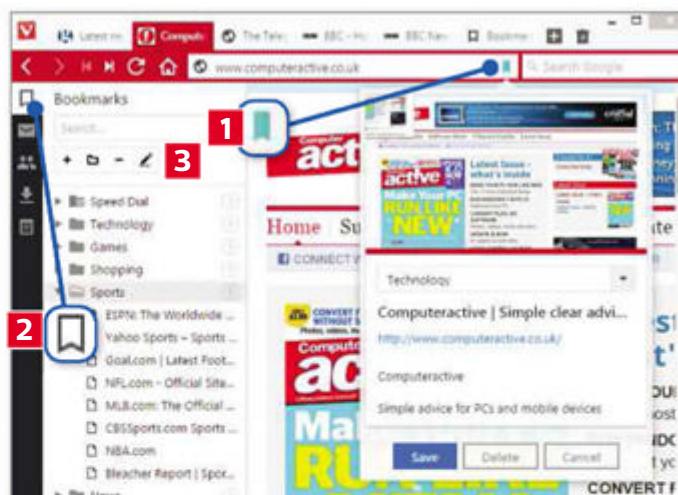
Unlike many browsers, it lets you customise its appearance and use keyboard shortcuts. Despite being a Technical Preview, Vivaldi is regularly updated with new features and gave us no problems when we used it.



STEP 1 Go to www.vivaldi.com and click the blue Download Tech Preview 2 button. Click the setup file that downloads, Yes, then ‘Accept and Install’. The browser will open with tabs at the top and a few basic options in a panel on the left **1**. To open web pages without images, click the Image icon **2**, then select No Images. The slider **3** lets you zoom in and out of a web page.

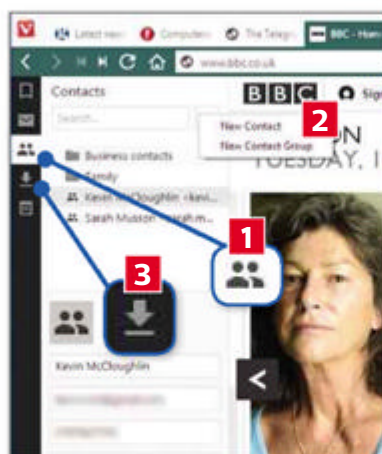


STEP 2 By default, new tabs open in the Speed Dial section, which contains six default website tiles. Close any you don’t want then click the ‘+’ tile to add new ones. To create a new Speed Dial section, click the ‘+’ icon **1**, name the section, then start adding tiles to it. Click the Bin icon **2** to see any tabs you’ve closed during that browsing session. From here you can reopen them if you want. One unique Vivaldi feature is ‘tab stacks’, which lets you group multiple tabs into one. Click and drag any tab over a second one until it greys out, then release your mouse. Repeat this to add more tabs. Move your cursor over the stack **3** to see all its tabs.

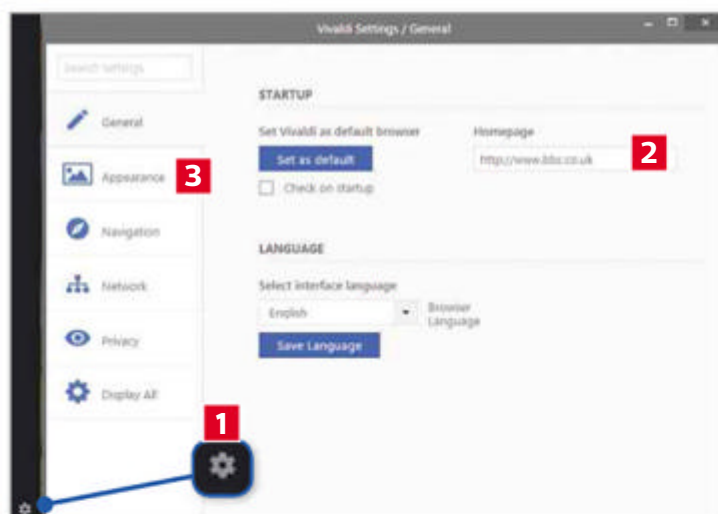
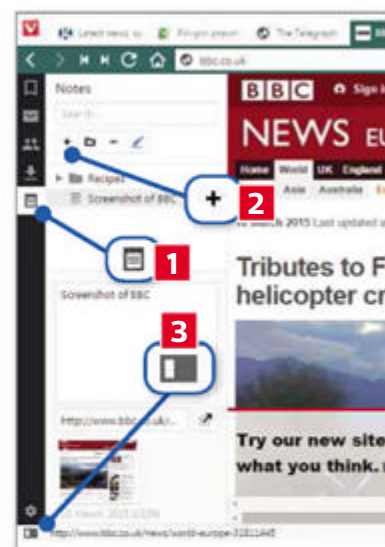


STEP 3 To bookmark a web page you’re looking at, click the Bookmark icon **1**. Next, click the dropdown menu in the panel that appears to see a list of categories (Bookmarks, Speed Dial, News, Business, Technology and so on) that you can add it to. Give your bookmark a description and nickname (optional), then click Save. Click the Bookmarks option **2** to see a list of categories containing popular websites. The four buttons **3** at the top let you add a new bookmark, create a new category, delete a bookmark and change its name and description.

STEP 4 Vivaldi has other unique features, such as Mail, Contacts and Notes built into the browser (you need **add-ons** to use them in other browsers). The Mail tool isn't live yet, but you can still save contact details for reference. Click the Contacts icon **1**, then click the '+' symbol and select New Contact or New Contact Group **2**. Clicking New Contact lets you add their name, email address, phone number and address. If you click New Contact Group, type a group name at the bottom left, then press Enter. To add a contact to a group, type the group's name in the box below the contact's address details and press Enter. Any files you download will appear in the Downloads section **3**. The three options below the downloads search bar let you stop downloads, restart them, and clear your download list.

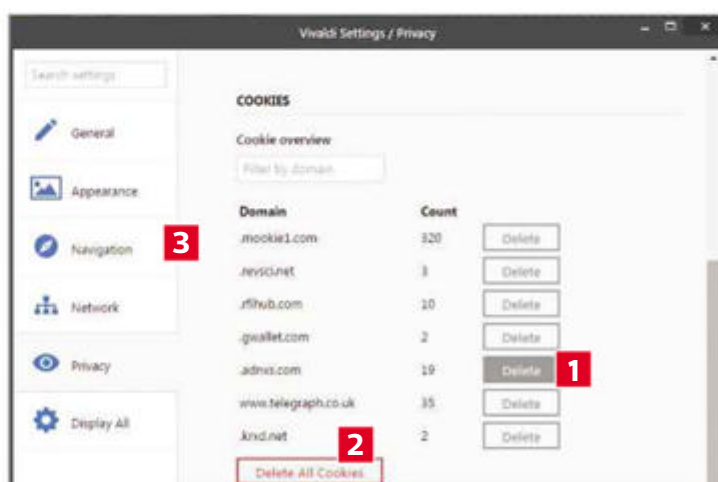


STEP 5 The Notes feature is useful for saving web articles to read later, along with a short description and screenshot (you should be able to sync these across multiple devices when Vivaldi releases a mobile app). Click the Notes icon **1**, then click the '+' symbol **2** to create a new note (or the icon beside it to create a new folder). Type (or copy and paste) your description in the section below and add the web page's URL in the address field below that. To add a screenshot of the web page, click the Photo icon at the bottom. You can hide/reveal the black panel on the left by clicking the slider **3**.



STEP 6 To change Vivaldi's settings, click the Settings (cog) icon **1**, then the General tab. The browser's homepage is set to www.vivaldi.com by default, but you can change this in the Homepage field **2**. Click the Appearance tab **3** to change where your tabs, address bar and panel appear by selecting from left, right, top or bottom. The Bookmark Bar is turned off by default, so you need to select if and where you want it (Top or Bottom).

STEP 7 You can view and delete your saved **cookies** and passwords. Click the Privacy tab, scroll to the Cookies section, then click the Delete button beside an entry **1** or click the Delete All Cookies **2** button. Repeat this process in the Passwords section to remove any you don't want saved. You can change your search engine (to DuckDuckGo, for example) or search a specific website (such as Amazon or Wikipedia). To do this, click the Navigation tab **3**, click the Google dropdown menu, choose the option you want, then click 'Set default'. Scroll down to see a list of keyboard-shortcut tasks (create a bookmark, open a new tab, open your Settings and so on). Click any of the fields, then press the key combination you want. ●



Create your own Word fonts for free

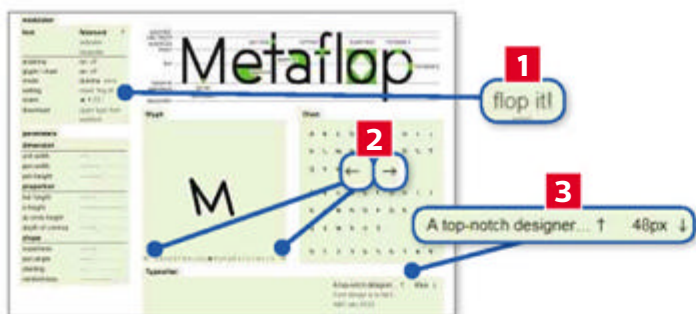
What you need: Any web browser **Time required:** 10 minutes

If you've been looking – in vain – for the perfect font, why not create your own? Metaflop Modulator is a new website that lets you do just that. Simply by moving a few sliders, you can customise your font while

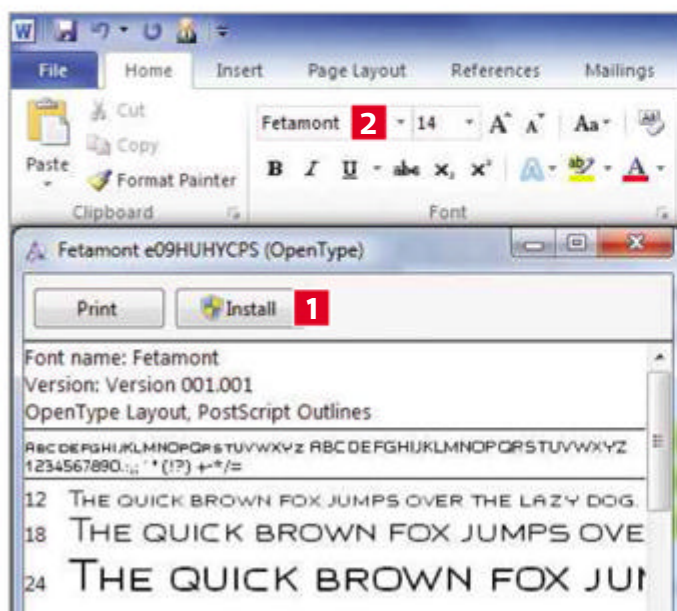
constantly previewing any changes you make. Once you're happy with the font you've created, you can download it to your PC and use it within any Office program, including Word and PowerPoint.



STEP 1 Go to www.metaflop.com/modulator. Here, you'll see a list of 'modulator' options **1** and 'parameters' sliders **2**. There are also three preview sections containing individual letters (Glyph), numbers and upper- and lower-case letters (Chart), and sample text (Typewriter). The 'parameters' section contains customisation sliders for 'unit width', 'pen width', 'cap height' and so on. Click 'on' **3** next to 'anatomy' to see an illustration of what each of these options refer to.



STEP 2 Keep clicking the 'flop it!' setting **1** to browse the various font types. For more font-type options, click the 'bespoke' arrow at the top left and choose 'adjuster' or 'fetamont'. Once you've settled on a font type, start customising it by moving the sliders in the 'parameters' section. To preview another letter, click that letter at the bottom of the Glyph section. Click the left and right arrows **2** to see options for numbers and lower-case letters. You can change the Typewriter sample text and its font size using the arrows **3**. To undo your changes, click the 'reset' setting (beside 'flop it!').



STEP 3 To download and use your font with your Office programs, click 'open type font' beside 'download' in the 'modulator' section (top left). A file containing the font will download to your PC. Click the file to open it, then click Install **1**. Once it's installed, open any Word document, click the Font dropdown menu **2** and choose your new font (it will be named Fetamont, Bespoke or Adjuster, depending on the font type you chose). If this method doesn't work, copy (Ctrl+C) the downloaded font file. Now click the Start button on your PC, type **fonts**, open the Fonts folder and paste (Ctrl+V) the file there. You should now be able to use it within Word.

NEXT ISSUE

ON SALE
15 April

- Make amazing panoramas from your photos
- Take screenshots using Windows
- Edit videos on your iPad for free
- Create a fake virus to test your PC security

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TIP OF THE FORTNIGHT

Explore London as it was over 450 years ago

As a retired History lecturer, I was intrigued when a former colleague emailed me a link to the 'Agas Map of Early Modern London' website. This lets you explore details of the city as it was over four hundred years ago by using dropdown menus.

Civitas Londinium (as this particular

map is generally known) was printed in 1561 and is one of the earliest known maps of London. It's believed to have been created by renowned British surveyor Ralph Agas, who made many maps during that time, including of Cambridge and Oxford – though some people still debate whether this

particular map can be attributed to him.

Go to the website (www.snipca.com/15761) to see a (barely recognisable) map of our capital city. It's striking to see just one bridge (London Bridge) on the Thames. The panel at the top right contains a list of locations, including

bridges, churches and taverns. Click any of the category dropdown menus, then tick the ones you're interested in to see their positions marked on the map.

You can zoom in and out of the map either using your mouse wheel or the slider at the top left. Clicking anywhere on the map gives you more information about that specific area in a small box on the right. Click the links in the box to read more about the streets and landmarks in that location.

Click the flower icon at the top left (above the slider), then click The Map to read more about this wonderful historical artefact I for one am thankful it's now available as an interactive website.

James Burden



The winner of every Tip of the Fortnight wins this exclusive Computeractive mug!



EMAIL

Quickly attach files from Dropbox in Gmail

Last year Google added a Google Drive icon to the bottom of the Gmail compose window that lets you quickly attach files from your Google Drive cloud storage. Sadly, this wasn't much use to me because I've always used Dropbox. But now there's a new, free 'Dropbox for Gmail (Beta)' Chrome extension that lets you add a similar Dropbox icon so you can quickly attach files from there.

Go to www.snipca.com/15760 in Chrome, click the blue Add To Chrome button, then Add again to confirm it. Now open Gmail, click Compose, then click the Dropbox icon at the bottom. Sign into Dropbox and double-click any files to attach them to your emails.

Jeremy Wells

ADWARE REMOVAL

Eliminate BoBrowser adware from your PC

After downloading a number of free programs, I suddenly discovered a new browser had been automatically set as my default. It was also pinned to my Taskbar and when opened looked very similar to Chrome. Even its logo looked virtually identical (see image right).

I decided to do some research on this mysterious Chrome lookalike and was shocked to find that it's adware called BoBrowser, which comes bundled with some free programs. Even though I could eventually remove it from my PC, the process was far from straightforward, but it is possible.

First, close the BoBrowser window, then right-click its Taskbar icon and click 'Unpin this program from taskbar'. Now open your system tray (in your notification area), right-click the BoBrowser icon, then click Exit.

Next, uninstall BoBrowser from your PC via the Control Panel. When you see the Uninstall BoBrowser pop-up, tick both the boxes (see screenshot above right), then click Uninstall. You'll see a message telling you BoBrowser has stopped working. Click 'Close the program', which should uninstall it.

You now need to delete any data it saved on your PC. Open File/Windows Explorer and type `%localappdata%` in the location bar at the top. Now click the BoBrowser folder, then press Shift+Del to permanently delete it. As a final safety measure, run AdwCleaner (www.snipca.com/14262) or the free version of

Malwarebytes (www.snipca.com/14312) to eliminate any traces of it.

Eamonn Fowkes



PDFs

Continue reading PDFs from where you left off

My friend sent me a PDF of Jane Austen's *Pride and Prejudice*, which I started reading on my PC using Adobe Reader. I quickly became quite frustrated though, because I could never remember the last page I'd reached when I wanted to continue reading. Thankfully, I found a way to open the PDF on this page.

Open Adobe Reader, then press Ctrl+K to bring up your Preferences window. Click Documents on the left, then tick the first box at the top ('Restore last view settings when reopening documents') and click OK.

Hillary Amis

Phone and Tablet Tips

Brilliant things to do on your device

ANDROID

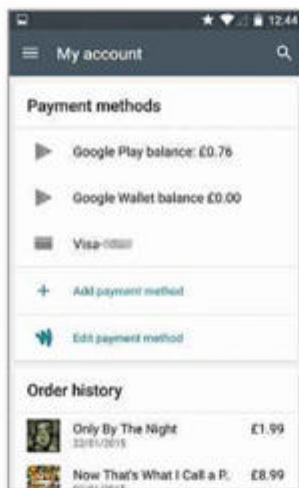
See what you've recently bought



Google has updated the Play Store app. Aside from a slight redesign, you can now see a list of anything you've bought on your device (apps, music, films and ebooks).

Open Play Store, tap the three lines at the top left, then tap 'My account' to see two sections. 'Payment methods' includes your payment details and your Google Play balance (for example, any Google Play vouchers you have recently redeemed). You can add to or edit your payment methods by tapping those options.

The second section ('Order history') lists anything you've bought (most recent items appear first) alongside the price you paid for it. Tap any content to see more information (category, genre and so on). Tap View to open it.



ANDROID

Move multiple Google Drive files at the same time



Google Drive (www.snipca.com/15776) now lets you batch-select and move multiple items to a folder. Open the app to see a list of your folders and files. Tap and hold the first file you

want to move until you see a blue tick on it (and tick outlines on your other files). Now tick any other files you want to move. As you do this, you'll see the number of files you've selected displayed at the bottom of the screen. Tap the three dots to the right of this number, then tap 'Move to' (see screenshot below) and select a folder. You can also tap the folder icon at the top right to create a new one.

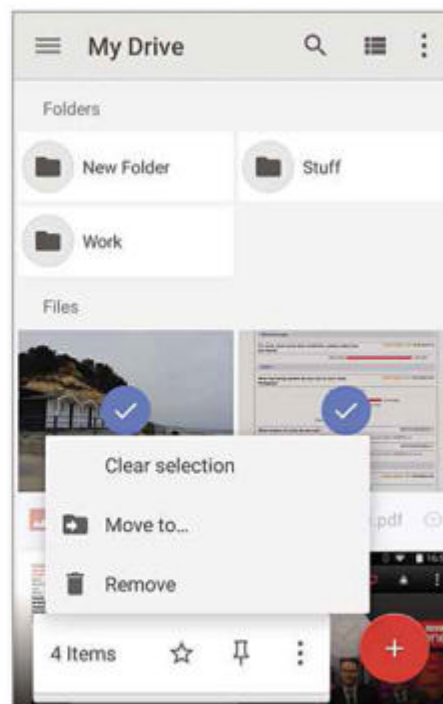
ANDROID

Speed up your device by deleting unwanted items



The security software company Avira has released a new free app called Avira Android Optimizer that's designed to speed up your device. It has a handy button that instantly closes your background apps. It also provides options to delete your apps' caches, uninstall multiple apps in one go and clean up your personal data (including browsing history).

Install the app (www.snipca.com/15777), open it, then tap the green One-Tap Speedup button to close your background apps. Next, you should tap Clean Memory to see a list of all your apps and how much memory you can free up by deleting each one's cache. Untick



any apps whose cache you want to retain (for example, your email apps), then tap Clean Now.

The second icon at the top left lets you uninstall a number of apps in one go. Tap it to bring up a list of your installed apps along with their size. Tick the apps you want to uninstall, then tap Uninstall (see screenshot right). You then tap OK to confirm you want to uninstall each app in turn.

Swipe right to see a third option, which lets you delete junk files (including system

Best New Apps

What you should install this fortnight

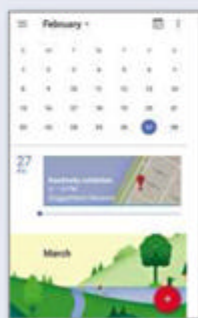
Google Calendar

Free

Android: www.snipca.com/15779

iOS: www.snipca.com/15780

The Google Calendar app is finally available for iPhones. Log in with your Gmail account and sync the app with



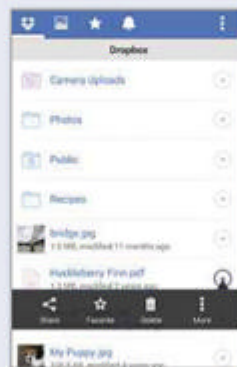
your existing calendars. Within the app, you can use Google Maps to find directions to any location you need to visit. The Android app now lets you add files to your calendar from Google Drive.

Dropbox

Free

Android: www.snipca.com/15778

Dropbox for Android now lets you access any PDF file on your device – even if it's not stored in Dropbox. This means you don't need to install a separate PDF reader app (such as Adobe Reader). You can now also search for specific words within any Office document and PDF stored in Dropbox using the new search bar at the top.



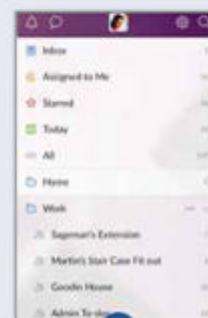
Wunderlist

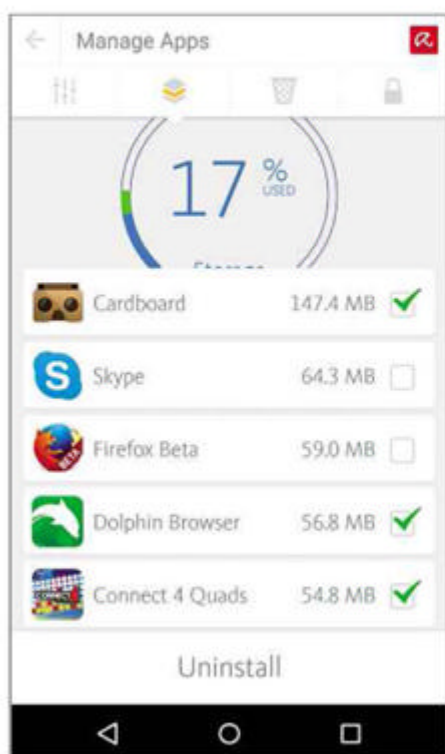
Free

Android: www.snipca.com/15781

iOS: www.snipca.com/15782

Wunderlist, which lets you create to-do lists, has received a major update, including a redesigned interface. You can now create folders from the sidebar on the left, then drag and drop your lists into these to organise them. Items in the sidebar are now colour-coded to help you distinguish between them.





cache) and media (audio and video) files saved on your device. Tick the items you want to delete, then tap Clean Now. The last option lets you delete your personal data. Tick the options you want to delete (browser history, calls logs and clipboard data), then tap Clean Now.

iOS

Hide the new Apple Watch icon from your homescreen



If you've updated your iPhone to the latest version of iOS (8.2), you'll see the new Apple Watch app on your homescreen. This isn't useful unless you own (or are planning to buy) an Apple Watch. Because Apple have decided to make this a default iOS app (similar to Photos, Camera and iBooks), it means you can't delete it. However, it's easy to hide the Apple Watch icon.

To update your iPhone, open Settings, tap General, Software Update, then 'Download and Install'. Your device will restart as the update is installed.

You'll now see the new Apple Watch icon on your homescreen. To hide it, tap and hold any app until all your app icons start shaking (and display an 'x' symbol in one corner). Now tap and drag the Apple Watch icon over any other app to create an app folder containing both apps. Once it's in the folder, tap the Apple Watch icon and drag it to the bottom of your iPhone screen. When you see your

dock (the four apps at the bottom of your screen), release the Apple Watch icon, and you won't see it on your homescreen anymore.

You'll still be able to access it by swiping down from the top of your device, then typing **apple watch** in Spotlight Search.

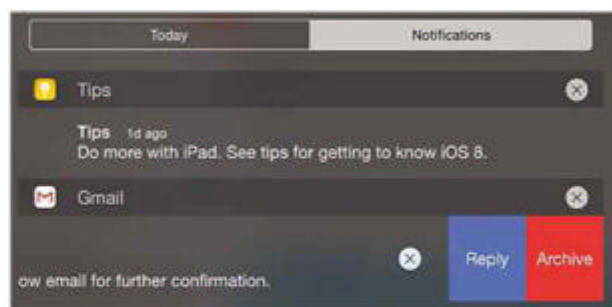
iOS

Reply to or archive emails from the notification centre



Gmail for iOS now lets you reply to or archive any new emails you receive directly from the notification centre, without you having to open your Gmail app.

When you receive a new email, swipe



down from the top of your device's screen to access your notification centre. Now swipe left across the email's notification to see options to close it, reply to the email or archive it (see screenshot above right). Tap the relevant option. To access your archived emails, open your Gmail app, tap the three dots at the top left, the More dropdown menu at the bottom, then All Mail.

Games With Kids

What to play together on your phone and tablet

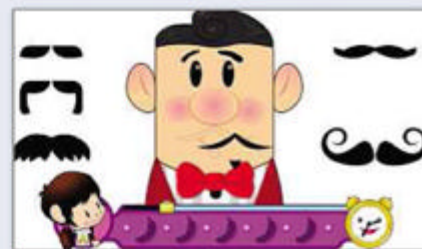
AGES 0-5

Zuzu's Bananas

£1.87 www.snipca.com/15783 (Android)

£1.49 www.snipca.com/15784 (iOS)

With over 50 games, this app will keep your kids entertained for hours. Our favourites include ones in which you tap flies to feed them to a frog and match a moustache to its outline.



AGES 6-10

Minichess by Kasparov

£2.49 www.snipca.com/15785 (Android)

£2.99 www.snipca.com/15786 (iOS)

Endorsed by Chess grandmaster Garry Kasparov, this app features a friendly character (Cheddar the Chess mouse) who teaches your kids chess by describing how each piece moves, then quizzes them until they're ready to play.



AGES 11-16

Wordathon: Classic Word

Free www.snipca.com/15787 (Android)

Free www.snipca.com/15788 (iOS)

In this new game (which is a combination of Boggle and Word Search) you see a grid of letters and have to connect adjacent ones to form as many words as you can within a five minutes. Uncommon words win you more points. Take turns to challenge your children and see who the better wordsmith is.



WINDOWS 7, 8, 8.1

Cancel print jobs you've already started



There have probably been many times when you've sent multiple files to print only to realise you don't need to print all of them. Thankfully, there's an easy way to remove specific files from the print queue before the printing job begins. Click the Start button, 'Devices and Printers', click your printer (in the 'Printer and Faxes' section), then click 'See what's printing' at the top. You'll see a list of all the files in the print queue, along with the number of pages they contain. To stop a specific file printing, right-click it, click Cancel, then Yes to confirm.

WINDOWS 8, 8.1

Navigate your screen without touching your PC



If you have a laptop or PC with a webcam and like to use the Food & Drink app (on the Modern tile interface) to follow recipes while you cook, then you should try the app's Hands Free Mode. This lets you navigate pages by simply swiping your hand in front of your camera (like Tom Cruise in *Minority Report*). Activating this mode will help you keep your laptop/PC free from messy ingredients.

Open the Food & Drink app in the Modern tile interface and scroll to the Recipes section on the right. You can then click a recipe from one of the featured celebrity chefs (including Jamie Oliver, Mary Berry, Nigella Lawson), or click See More to sort recipes by category (such as Cuisine, Difficulty and Total Time). See Issue 437's Make Windows Better for more information on how to create a collection of your favourite recipes.

Once you've selected a recipe, click Hands-Free Mode at the bottom left, then click Allow to let the app access your camera and microphone. Your front camera will switch on and the recipe will be divided into individual steps, which appear as squares at the bottom. Sweep your hand across the front

WINDOWS 7, 8, 8.1

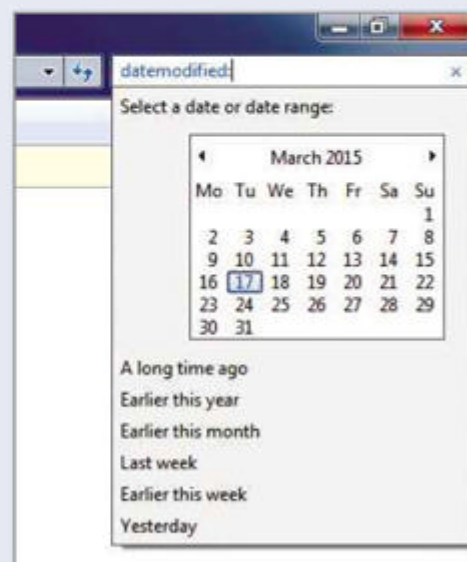
Quickly locate files created at a certain time or of a certain size



We've all forgotten the name of a file that all of a sudden we desperately need to find on our PC. Despair not because there are other criteria (other than filename) you can use to locate files. For example, when they were created or saved, or how big they are.

To find files created around a certain time, open Computer (or the folder you want to search) and type **datemodified:** in the search box at the top right. You'll see a calendar with a list of options below it (see screenshot). Click one of the options – such as 'Earlier this year' or 'Last week' – to see the files created in that time frame.

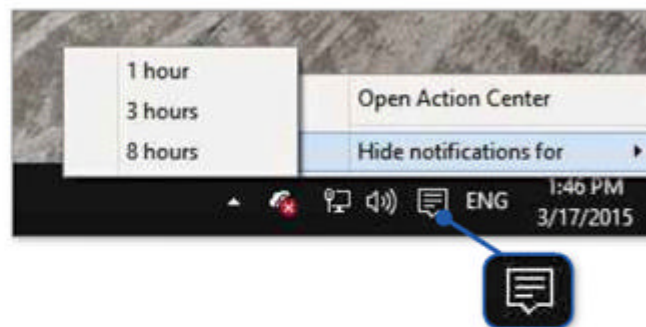
Clicking 'A long time ago' displays files created more than a year ago. Click any of the dates on the calendar to narrow your search. To see files created between specific dates, go to the first date using the navigation arrows on the calendar and click it. Now, press and



hold the Shift key on your keyboard, navigate to the second date, and click it. You will now see a list of files created between those dates.

To sort files by size, click the 'x' icon in the search bar to clear it then type **size:**. You'll see a range of different file sizes from 'Tiny (0-10KB)' to 'Gigantic (>128MB)'. Click the option you want.

camera from right to left to go to the next step, or left to right to see the previous one. Click the green Hands-Free button at the top right (see screenshot below) when you want to exit this mode.



WINDOWS 10

Hide distracting Desktop notifications



The Windows 10 notification icon (see screenshot above) tells you about system updates, new emails

or data that's being synced in the background with cloud services such as OneDrive. There's an easy way to hide these notifications so they don't distract you while you work.

Right-click the notifications icon, then move your cursor to 'Hide notifications for' (see screenshot above) and select one of the three options – 1 hour, 3 hours or 8 hours. If you want to revert to seeing your notifications as they arrive, right-click the notifications icon, then click 'Show notifications'.

Step 1 of 2

Place the egg yolk, lime juice, zest and mustard into a bowl and whisk for 1 minute. Add the oil in a thin stream whilst whisking continuously until thick and emulsified

SWAY

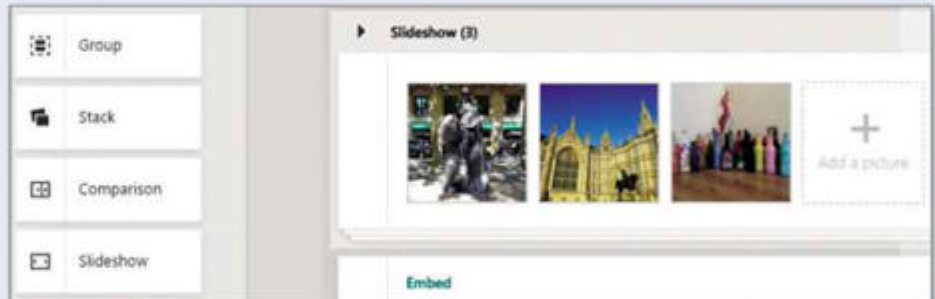
Add a slideshow to your 'sway'



Sway, Microsoft's new online presentation tool, lets you create scrolling presentations (called 'sways') that can be accessed online as well as via mobile apps. See our 'Make presentations using Microsoft Sway' Workshop in Issue 442.

Since we featured Sway in Issue 444's Make Office Better, it's been updated with even more features, including the option to add a slideshow to your sway. This lets you upload a selection of images which you navigate through using left and right arrows.

Go to www.sway.com, click 'Sign in' at the top right and log in with your Microsoft (Outlook or Hotmail) account. Now click My Sways at the top right, then click the sway you want to add a slideshow to. To add it to a new sway,



click the three dots at the top right, then Create New.

In your sway, click the '+' symbol at the bottom left of the section you want to add the slideshow to. Next, click Cards at the top right, then Slideshow at the bottom left. Now click 'Add a picture'. To add an image from your PC, click the top-left Suggested dropdown menu, Upload, navigate to the image, then

click Open. Click 'Add a picture' and repeat the process to add the rest of your slides in the order you want them to appear in your slideshow. Click the dropdown menu beside Slideshow to add captions to your images. When you've finished, click the Preview button at the top right to see your slideshow images complete with navigation arrows.

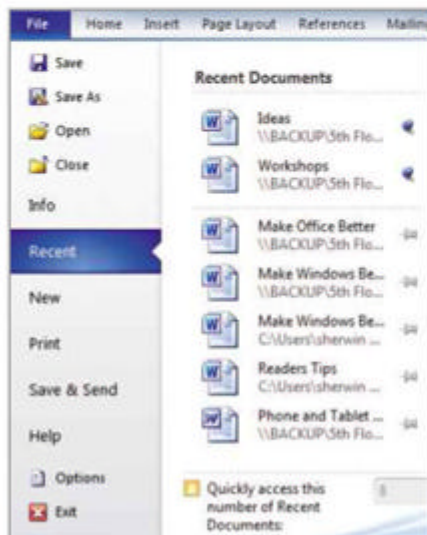
OFFICE

Add files you access often to the File tab



Clicking the File tab at the top left of Office 2010 and 2013 gives you a list of default options you use all the time (including Save, Save As, Open and Print). There's an easy way to add files you access often to this tab. We'll show you how to add Word documents, but this process also applies to Excel spreadsheets and PowerPoint presentations.

Click the File tab, then Recent. You'll



see a list of Recent Documents in the left-hand column and Recent Places (folders on your PC) on the right. Select the documents you want listed in the File tab by clicking the small, grey pin icons beside them. They'll move to the top of the Recent Documents list and display blue pin icons (see screenshot below left). Now tick the 'Quickly access this number of Recent Documents' box at the bottom, then type the number of files you've pinned. Whenever you click the File tab, you'll now see these documents listed between the Close and Info options on the left.

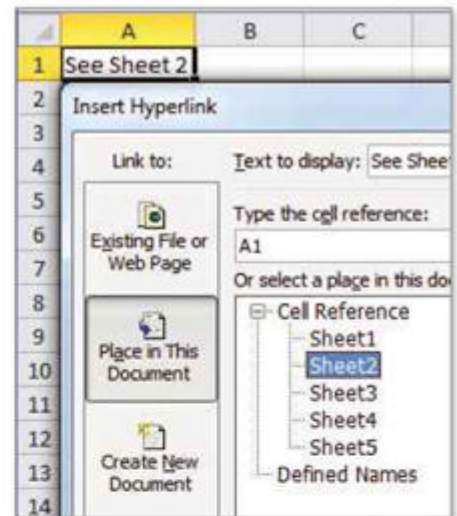
POWERPOINT

Save your presentation as a video



In Issue 445, we showed you how to add audio files to your slides and edit them (see 'Edit audio for slides in your presentation'). If you've created a presentation with audio, then it's a good idea to save this as a video file. You can then burn this file to a DVD and play it on your TV or even upload it to YouTube.

Open your presentation, click File (top left), then Save As. Name the file, click the 'Save as type' dropdown menu, select Windows Media Video, then click Save. You can now play this file using Windows Media Player or software such as VLC.



EXCEL

Link text to other sheets



If your Excel file has multiple sheets, there's an easy way to create linked text within a cell that opens another sheet when clicked. Right-click the cell containing the text you want to link, then click Hyperlink at the bottom. Next, click 'Place in This Document' on the left. You'll see a Cell Reference menu listing all the sheets in your file (see screenshot above). Select the one you want to link to, then click OK. The text will now turn blue, indicating it's a link.



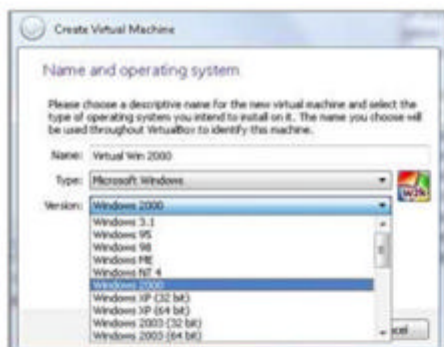
VirtualBox

Install a guest OS, speed up your virtual machines and roll back if things go wrong

Run a guest OS in your PC

We've mentioned VirtualBox (www.virtualbox.org) a lot recently, because it's our favourite tool for creating **virtual machines** (VMs) – such as the one we've been using to run the Windows 10 Technical Preview. By running the Preview in a VM rather than installing it directly on your PC, you can isolate it from your main operating system (OS). In VirtualBox parlance, that makes Windows 10 the 'guest operating system'.

To create a VM, run VirtualBox and click New. Use the dropdown menu to choose the guest OS you want to install



Choose a 'guest operating system' to run in a virtual machine (VM) using VirtualBox

(see screenshot below left), then allocate some of your PC's memory and hard-drive space to it. You don't have to make any decisions here – provided you've got enough **RAM** and space to spare, you can simply use the default settings.

You won't be able to run a guest version of Windows unless you have its installation CD handy, or at least a legitimate installation file (usually an **ISO file**) and your licence key. The Windows 10 Technical Preview is free, of course, but you still need a licence key (see our lead Workshop, Issue 443).

Speed up your virtual machine with extra memory

Virtual systems need memory, just like your main OS does. When you create a VM, VirtualBox allocates a default amount of RAM to it, but you can allocate more by moving the memory slider to the right. You can change this later from the System section of the VM's Settings menu.

We'd recommend allocating at least 2GB (2000MB) of RAM to a VM running Windows 7, 8/8.1 or 10. But be aware that your PC's RAM is finite. If you allocate more of it to a VM, your main OS and

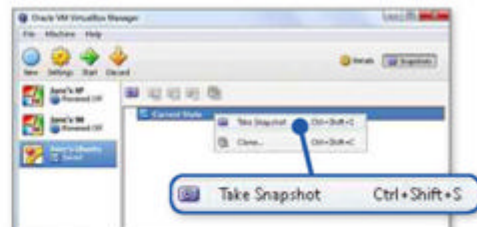
other programs may slow down as a result.

Roll back to a Snapshot

VirtualBox lets you store 'Snapshots' of VMs as you go along, so you can roll back if things go wrong – a bit like **system restore points** in Windows.

For example, if you want to use a VM to test a program you're not sure about, create a Snapshot of the VM before you install the program. To do this, select the VM in VirtualBox, right-click Current State and click Take Snapshot (see screenshot below). Then click Start to run the VM, and install the software you want to test. When you've finished using it, you can restore the Snapshot to remove all traces of the program.

You can save multiple Snapshots in each VM, just like saving multiple restore points, and roll back to any of them without overriding the others.



Take a Snapshot of your virtual machine so you can turn back the clock if necessary

Explore the VirtualBox wiki site

VirtualBox can be confusing at first, so make friends with its wiki site (www.virtualbox.org/wiki) before you get bogged down in buttons and menus.

The site guides you through every step of the way, from installing it (www.snipca.com/15749) to running multiple VMs from a remote **server** (www.snipca.com/15750). The Community section (www.snipca.com/15751) provides links to a forum, live **Internet Relay Chat** and (if you're really confident with VirtualBox) 'Test builds'.

Click the small Preferences link at the top-right of any page to set up keyboard shortcuts, create an account and store and restore browsing sessions



Store your sessions on the VirtualBox site in case you need to retrace your steps

– a useful feature in a site this size.

VirtualBox is **open-source** software and the site is community-run, but it's all overseen by technology company Oracle (www.oracle.com/uk), which helps to ensure the information is up to date.

Hack VirtualBox with extensions

In our Cover Feature in Issue 443, we showed you how to improve installed software using **plug-ins** such as browser extensions. VirtualBox also supports extensions, and you can download packages of them from the VirtualBox **wiki site**. Click Downloads in the left-hand menu, then 'All supported platforms' and save the file to your Desktop. You can then install the package from the Devices menu of a running VM (click 'Insert Guest Additions CD image...'). For this to work, you'll need to have allocated virtual-drive space to the VM when you created it, and you'll need to be running the latest version of VirtualBox (4.3.24), which was released in March.

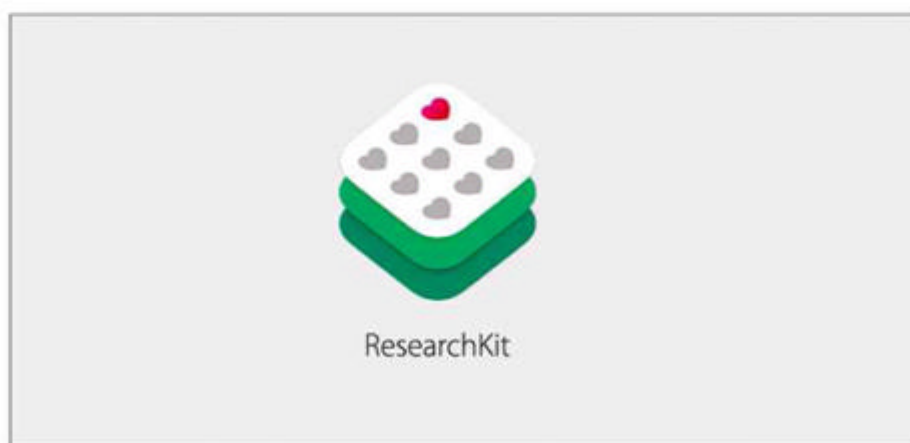


Apple ResearchKit

You'll soon be able to aid research into Parkinson's and other medical conditions with a few taps on your iPhone

What is it?

New Apple software that lets iPhone owners take part in voluntary medical trials through apps that have been built by a number of institutions around the world, including Oxford University. Apple says that by interacting with the apps users will provide valuable data to researchers. It was announced on 9 March at the same event that saw Apple unveil its long-awaited smartwatch. Many tech experts believe – and we agree – that ResearchKit will prove the more significant development of the two.



What kind of medical research?

There are five free apps that each aid research into a different medical condition: MyHeart Counts for cardiovascular disease; GlucoSuccess for diabetes; mPower for Parkinson's disease; 'Share the Journey' for breast cancer; and Asthma Health for asthma.

How do the apps work?

They all track your behaviour and activity. We've yet to test the apps, but the most impressive appears to be mPower. Its developers, Seattle organisation Sage Bionetworks and New York state's University of Rochester, have created simple tests that make it much easier for them to monitor how the symptoms of Parkinson's patients change over time.

For example, you can take the app's tap test to measure tremors in your movement. The app also records you saying 'Aaaaah', just as an actual GP would, in order to measure tiny variations in your vocal chords (see screenshot right). It can even use an iPhone's **accelerometer** and

gyroscope to analyse your balance as you walk.

That's impressive. What can the other apps do?

MyHeart Counts combines records of your daily activity with your cholesterol results and blood pressure to calculate your risk of suffering a heart attack or stroke. Researchers into diabetes can use the GlucoSuccess app to gather data about how diet and lifestyle affect glucose level in blood. Similarly, asthma specialists can use Asthma Health to analyse what types of behaviour trigger attacks, while cancer researchers will use 'Share the Journey' to help them work out why some breast cancer survivors recover faster than others.

What do medical institutions think of it?

They love it because currently they struggle to get research samples that are large and diverse enough to be useful. But with Apple's sales of iPhones having reached 700 million recently,

scientists now have a gigantic pool of potential data providers – and that number will surely hit 1 billion some time this decade. The developers of mPower say the app will become "the world's largest and most comprehensive study" of Parkinson's.

Can I download the apps now?

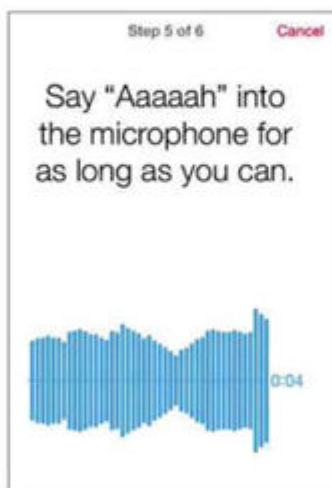
No. They are currently only available in the US. But Apple plans to make them available worldwide soon. They work only on the iPhone 5, iPhone 5s, iPhone 6 and iPhone 6 Plus. For more information visit www.apple.com/researchkit.

Will Apple know all my medical details?

All data is collected anonymously, so you don't need to worry. But the price on the black market for medical data is rocketing, so hackers will certainly try to steal it.

So what's in it for Apple?

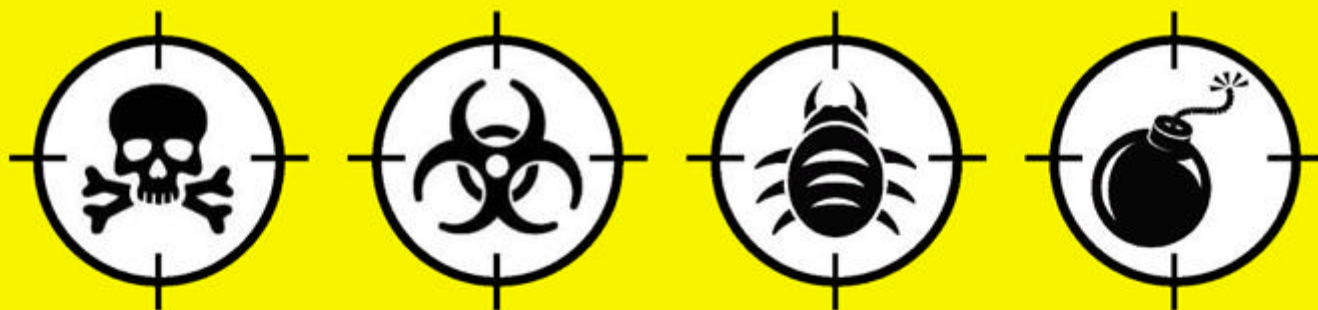
Prestige as well as profit. Apple won't make a fortune by selling your medical data, but it will make even more billions in the future if the iPhone is perceived to be contributing to the wellbeing of humankind. For many people the iPhone is already the most desirable gadget ever. Its appeal will only increase if, as Apple hopes, ResearchKit "revolutionises medical studies".



Open wide and say 'Aaaaah' to help Parkinson's researchers fight the disease

Remove HIDDEN MALWARE

Malware has learned how to sneak past your antivirus and hide in your computer.
Jane Hoskyn shows you how to weed out these silent killers



There is probably malware in your PC. You can't see it, you can't hear it and you can't smell it, but chances are it's there.

The latest annual Kaspersky Security Bulletin (www.snipca.com/15800) says 38 per cent of Kaspersky users' PCs were hit by "at least one" malware attack in

2014. We reckon that figure is pretty conservative. After all, those users were running products that consistently top the antivirus (AV) tests run by our security team at Dennis Technology Labs (DTL, www.dennistechnologylabs.com). Many people run much less powerful AV software, and some don't run any at all.

Moreover, the study only takes account of malware that was spotted. Undetected malware, by definition, won't be included in that headline 38 per cent figure. This all means a huge number of us may well have fallen prey to a silent PC killer. You, me, your next-door neighbour... (definitely your next door neighbour).

To check we're not just being paranoid, we asked DTL if they thought our computer might be hosting hidden malware. We expected a long-winded, technical reply that translated as

"maybe", but the answer was quick and unequivocal: "Definitely!"

Shouldn't your antivirus block malware?

As the Kaspersky study shows, even the most powerful AV is far from fallible. That's no reason not to use AV (please do!), but don't assume it'll catch every strain of malware – especially new bugs that security companies aren't yet familiar with. Viruses, Trojans, worms, ransomware and other forms of malware evolve constantly and quickly to thwart their predators, and have even developed ways to regenerate. That's how viruses survive, in technology just as in nature.

Over the next few pages we'll show you how to weed out your PC's hidden nasties and destroy them so they never come back.

KEY POINTS

- Scan your PC's processes for malicious activity
- Find rootkit malware even your antivirus can't see
- Kill stealth malware using free new tools that won't conflict with your antivirus software
- Stop silent malware ever infecting your computer again



FIND THE HIDDEN MALWARE ON YOUR PC

Investigate mystery processes

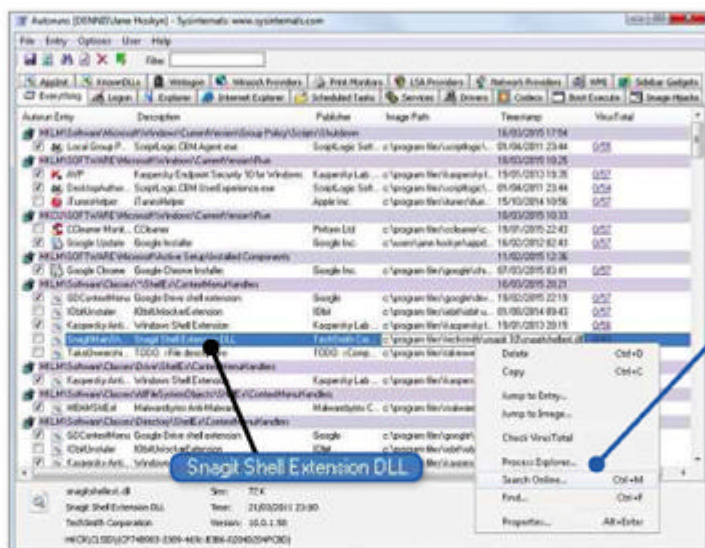
You all know the obvious signs your PC is malware-infected. It crashes a lot, it takes longer to start up and shut down, your browser homepage has changed (and refuses to change back), or there's a big ransom note on your screen.

But the really clever malware dispenses with these clumsy tell-tale signs. Its files hide themselves in the nether reaches of your system folders, and its processes are cunning devils that won't slow your PC or show up in Task Manager.

This being the case, this malware can run undetected for months or even years, logging what you type, recording your passwords and even, in the case of silent **rootkit** malware like Zeus, stealing from you when you log into your bank's website (see box below).

Any attempts to weed out this stuff starts with startup. We often recommend the free tool Autoruns (www.snipca.com/15791) for removing pointless processes from Windows startup, but it's a must-have if you want to find malware, too.

Autoruns is portable, so there's no installation process to worry about. Download it by clicking the blue 'Download Autoruns and Autorunsc' link, then save the small (1.24MB) **ZIP** file to your Desktop, extract its contents and click 'autoruns.exe' to run it (or right-click and choose 'Run as administrator' for more thorough results). Wait a couple



Narrow down your Autoruns list to third-party tools, then right-click an item and click Search Online to check how safe it is

of seconds while it lists every process that starts with Windows on your PC, including Registry activity, browser **extensions** and drivers – including the malicious ones. These kind of processes (especially the hidden malware) won't show up in Task Manager, so don't even bother with that.

Your Autoruns list will probably look quite intimidating, so use the Options menu to narrow it down bit by bit. Tick Hide Empty Locations, then Hide Microsoft Entries, and let the list refresh until it only contains active third-party items.

Now read down the list and, if you see something you don't recognise, right-

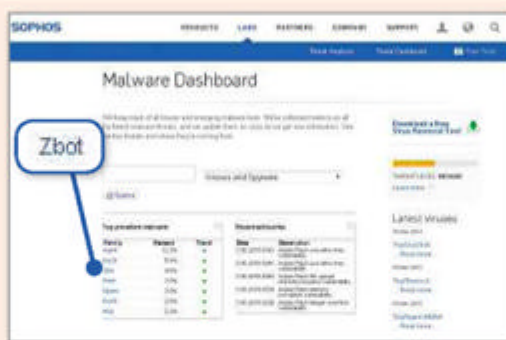
click it and click Search Online (or press Ctrl+M) to check it out on Google in your browser. This is more useful than it sounds. Google searches for the full file name associated with the process (for example, 'snagitshellext.dll' in our screenshot) and provides links to the relevant pages of numerous security sites, such as File.net (www.file.net), which reveals whether certain files are safe; Process Library (www.processlibrary.com), which explains what the process is and why it's running; and the excellent Should I Block It? (www.shouldiblockit.com), which tells you whether the process should stay or go. ▶

ZEUS IS BACK - AND THIS TIME IT'S INVISIBLE

Among all the generic bugs in the malware charts ('Trojan.Win32.Generic', no less) we spotted a chillingly familiar name: Zbot, better known as Zeus. It's currently riding high at number three in the 'Top prevalent malware' list published by security firm Sophos (www.snipca.com/15789 – see screenshot right).

Zeus is the ultimate hidden malware, and its stealth is the secret of its success. Between around 2009 and 2013, Zeus was the most widespread **botnet** on the internet, reportedly infecting 3.6 million PCs in the US alone (www.snipca.com/15807).

Zeus's mission is to intercept online banking transactions, stealing from both customers and banks, and its strategy is invisibility. It's based on rootkit technology that makes it difficult to detect, even with



One of the most successful botnets ever, Zeus, is back with a vengeance

the latest powerful AV software (including that used by banks and governments). For more on rootkits, see page 52.

Zeus mastermind Hamza Bendelladj was arrested in 2013, but Zeus is far bigger than one man. The Gameover Zeus botnet promptly picked up where Zeus

left off, raiding bank accounts and (as an extra little party trick) distributing CryptoLocker ransomware. In February, the FBI offered a \$3 million (around £2m) bounty for Gameover's alleged kingpin, Evgeniy Mikhailovich Bogachev (www.snipca.com/15806). But Bogachev is still at large (if you find him, let us know) and Zeus itself has bounced back with a vengeance.

"The bad guys don't have to be technical to use it," DTL's Simon Edwards says. "It hides in your system because it's usually after information and money. If it managed to get past your antivirus and into your system you wouldn't normally know".

For more detail on what Zeus is and how it works, download the free 'What Is Zeus' PDF from Sophos (www.snipca.com/15805).

Find suspicious hidden processes automatically

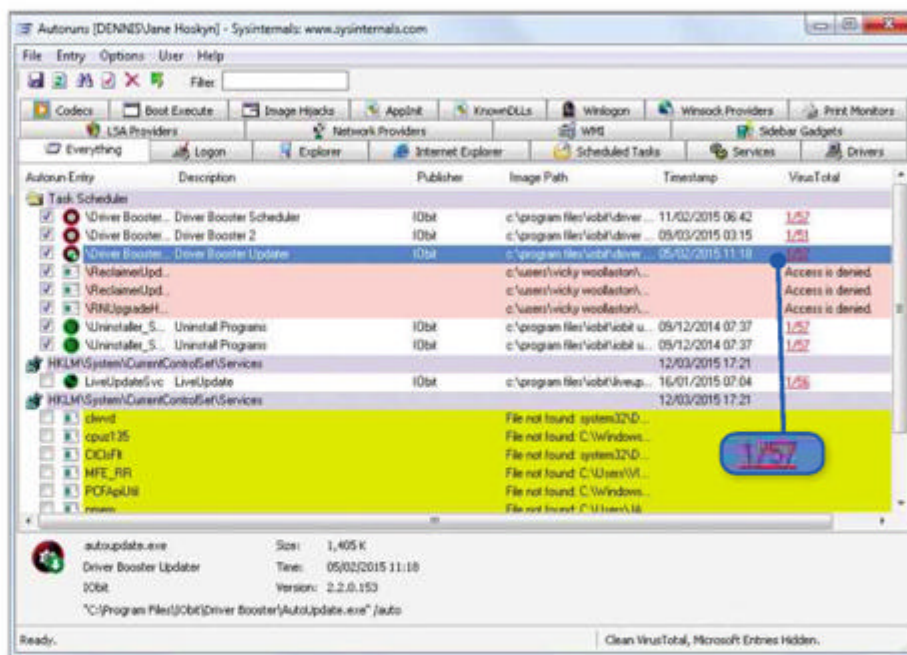
The latest version of Autoruns (13.2, updated in March) incorporates the file-checking database VirusTotal (www.virustotal.com) and adds a Check VirusTotal option to the right-click menu.

At first we assumed (not unreasonably) that we could simply click Check VirusTotal to run an instant check in VirusTotal online, in the same way the Search Online option runs an instant check in Google. Well, it's not quite that simple – you have to click a few set-up buttons, and the process is far from straightforward.

First, right-click an item and click Check VirusTotal. VirusTotal's 'Terms of Service' page opens in your browser; you don't need to click anything on the page, just close it. Next, you need to enable VirusTotal scanning in Autoruns. Go to the Options menu, click 'Scan options', tick 'Check VirusTotal.com', tick Submit Unknown Images, and then click Rescan.

Your Autoruns list is then scanned by VirusTotal in next to no time, and reloads after just a few seconds. Now click Options, then click Hide VirusTotal Clean Entries, and the list will reload again, showing only the items VirusTotal has flagged as potentially malicious.

As you can see from our screenshot, 'potentially malicious' is a fairly broad description. VirusTotal flagged all our



Click the red fraction next to an Autoruns process to open its Analysis page in VirusTotal

installed IObit tools, for example. We've got our problems with IObit, too (see Named & Shamed, Issue 444), but we do know its tools aren't malware.

The reason they're flagged up in VirusTotal is down to the way VirusTotal works. It collates data from 57 (and counting) security programs and, if only one of those programs says the process is dodgy, VirusTotal marks it as such. Our IObit tools were only deemed malicious by one of the 57, as you can see from the VirusTotal column in

Autoruns (see screenshot above). Click the fraction ('1/57' in this case) to open an Analysis web page showing results from all 57 security programs (this can take a minute or two to load). Click 'Additional information' and 'File detail' to find out more about the file and where it came from.

Root out rootkits your AV can't see

Some malware makes its presence obvious (ransomware, for example); other malware needs to be tracked down using Autoruns and VirusTotal. But there's another type that's far better hidden. Rootkit and 'backdoor' malware hides deep inside your system, using your PC's root tools as an invisibility cloak. You can't see it, your operating system can't see it and your AV can't see it. And, as we've seen in the case of Zeus, even the security software used by banks and governments can't see it.

Root tools aren't inherently malicious. They're built into your PC and other devices to hide system settings from meddling hands (hence the 'rooting' you read about, usually in relation to Android). Rootkits and backdoor bugs such as Zeus, SpyEye and Citadel (www.snipca.com/15816) hijack your root tools and wreak havoc under cover.

There are plenty of free tools for finding and removing rootkit and backdoor malware. They work separately from your installed AV and won't interfere with it. We recommend Malwarebytes Anti-Rootkit Beta (www.snipca.com/15810) because, despite its (long-standing) beta status, it's very



Malwarebytes Anti-Rootkit flushes out malware that hide in your PC using root tools



easy to use and doesn't bamboozle you with jargon.

Click the green Download button, save the EXE file and click to run it. There's no installation involved, but you will need to choose an 'extraction path' (click OK) and, in our case, bat away a possible **false positive** before the tool launches properly. (Our false positive was 'AppInit_Dlls', which Malwarebytes forum users suggest is a safe graphics file: www.snipca.com/)

15811. We took our chances and clicked No to ignore it. It seems fairly common, so it may be flagged on your PC, too.)

When the program window opens, click Next, then Update to download the latest malware **definitions**, which may take a minute or two. Click Next, then Scan. The scan is thorough and will take a while; ours took almost an hour. It's also memory-intensive, so your other programs will slow down. Best leave it to

run by itself, perhaps when you go to bed.

All being well, when you come back you'll see a green tick and the reassuring message: 'Scan Finished: No malware found!'. If the scan does detect rootkit malware, click the Cleanup button and restart your PC to blitz the offender – hopefully. Malwarebytes' own website admits you should run the scan again (repeatedly, if necessary) to make sure the malware has gone.

REMOVE HIDDEN MALWARE COMPLETELY

Remove stubborn hidden malware

If Malwarebytes Anti-Rootkit can't combat a rootkit infection, move on to GMER (www.gmer.net), recommended by our security team at DTL. This free tool is raw, no-nonsense extremely powerful. GMER is especially well-suited to **64bit** PCs, but will work on any PC running Windows XP or later.

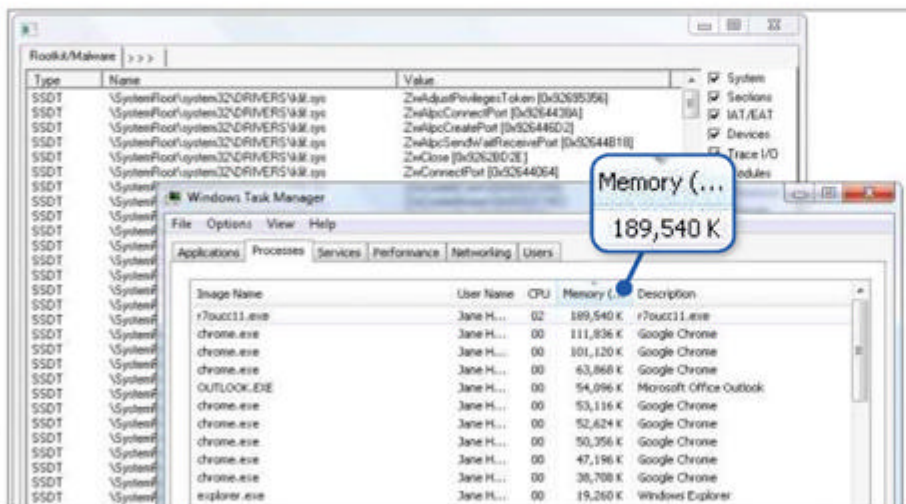
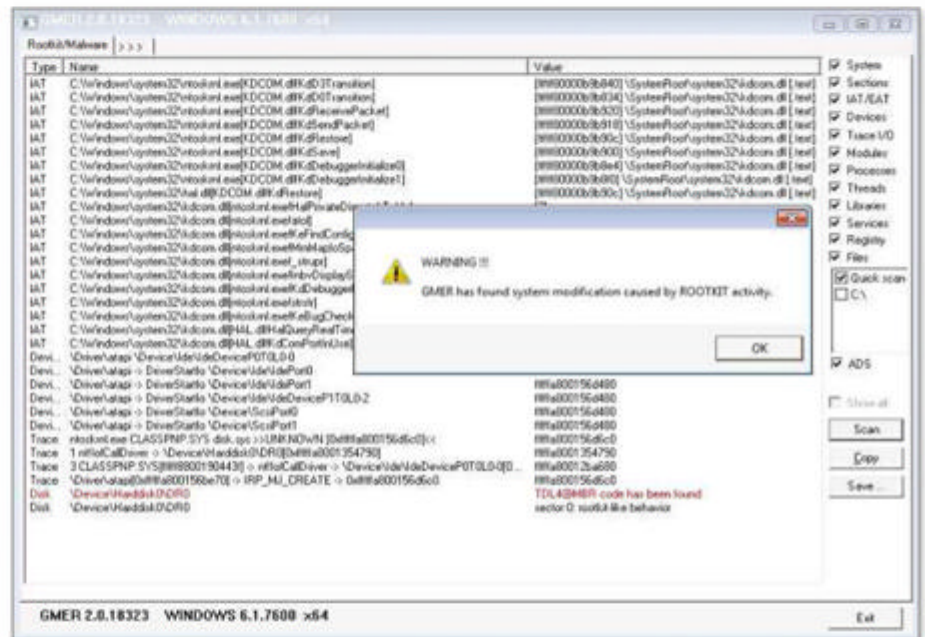
You'll see from GMER's website that this is not a program designed to appeal to the masses. Click the small grey Download EXE button under the screenshot and run the file (the intimidatingly named 'r7oucc11.exe'), wait a minute or two for the program window to appear, then click Scan.

As with Malwarebytes Anti-Rootkit, the scan takes some time and will slow down your PC, so leave it to run on its own. To speed things up, use the tick boxes at the right of the window to narrow down the scan to certain parts of your PC only, such as Registry, Files or Libraries.

If GMER finds any sign of malicious rootkit activity, the troublesome file will

be displayed in red and a 'WARNING!!!' pop-up will appear (see screenshot above). Click OK to remove the file, then restart your PC. We'd recommend running the scan again to make extra sure the file has been removed.

Obliterate rootkits and other hidden malware using the powerful tool GMER



Rootkit scanners like GMER use a lot of memory, so they're best used when there's no other software running on your PC

Fix damage done by hidden malware

Hidden malware can really mess up your PC, and this damage isn't magically undone when the malware is removed. Clearing up is a vital part of the process.

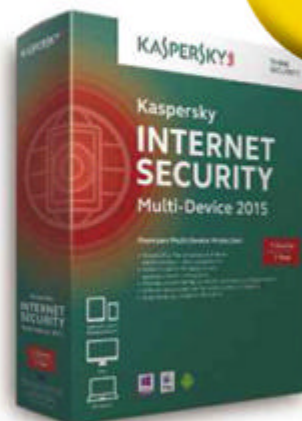
If you've downloaded Malwarebytes Anti-Rootkit, you've already got the powerful free clear-up tool FixDamage. You'll find it in the 'Plugins' folder in the 'mbar' folder on your Desktop. Before running it, save your work, close your programs and create a **system restore point**. Click 'fixdamage.exe', then Yes, then press 'Y' when the command-line window opens. The tool will automatically find and repair any changes to your system settings made by rootkit or backdoor malware.

Adware and other PUPs (potentially unwanted programs) also litter your PC with hidden leftovers. Adware may not sound as scary as rootkits, but you're much more likely to encounter it – and it dumps hazardous junk in hard-to-reach

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55%**

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WINNER OF THE PAST 4 COMPUTERACTIVE ANTIVIRUS TESTS

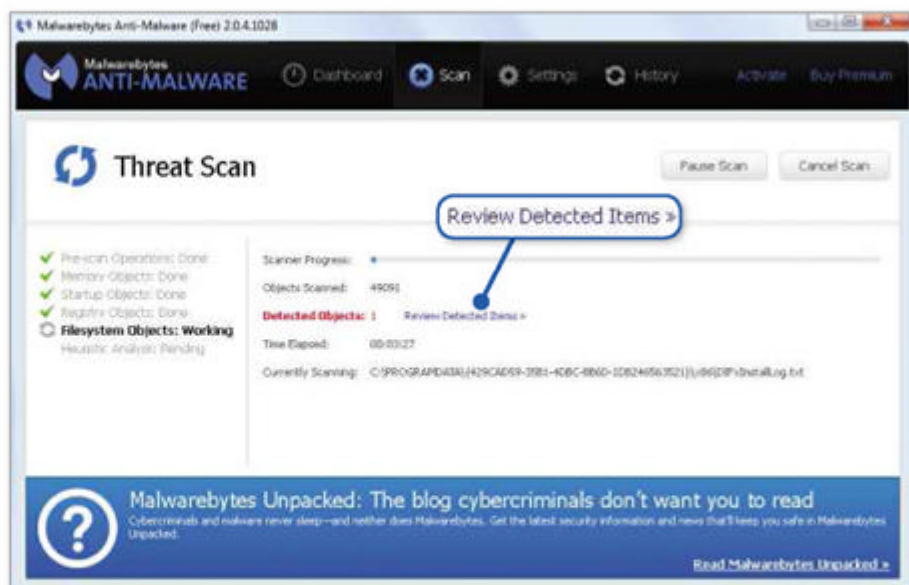
Issue 415 22 January; Issue 425 11 June; Issue 430 20 August; Issue 437 26 November



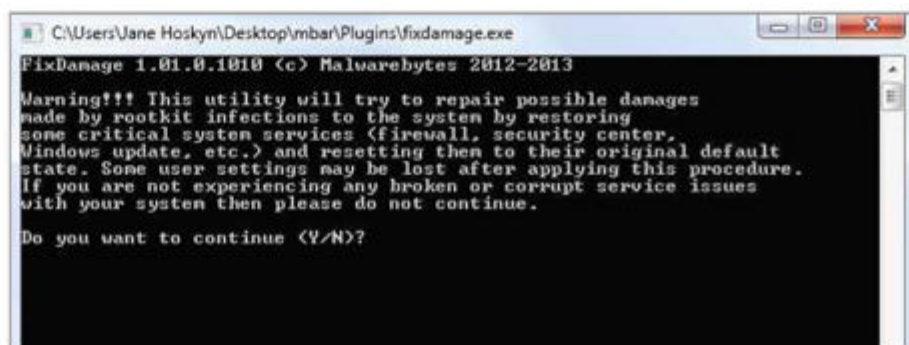
locations in your Registry and operating system (OS). This junk may include files that change your system settings and regenerate when you delete them.

To find and remove adware, run the free portable program AdwCleaner (www.snipca.com/15819), one of our (and your) favourite security tools ever. It scours your PC for hijackers, Trojans and their hidden leftovers. It won't find everything, however, so run Malwarebytes Anti-Malware Free (www.snipca.com/15821) as well. Malwarebytes Anti-Malware Free is not an AV program, because it doesn't attempt to stop nasties getting into your system (despite its claim to "protect you from malware"), but it's great for finding bugs and traces that AdwCleaner misses. If it detects malware you can click Review Detected Items to investigate the infection while the scan is still running. You can then remove selected items safely and completely.

Unlike the tools we've mentioned so far, Malwarebytes Anti-Malware Free does need installing. Click the black-and-white Download button, then save and run the setup wizard. There's no adware to opt out of (we'd be horrified if there were), but do untick 'Enable free trial of Malwarebytes Anti-Malware Premium' before you click Finish.



You can investigate malware discovered by Malwarebytes Anti-Malware Free while the scan is still running



Use the FixDamage tool to completely undo any changes made to your PC by rootkit malware

STOP MALWARE HIDING IN YOUR PC AGAIN

Choose one antivirus

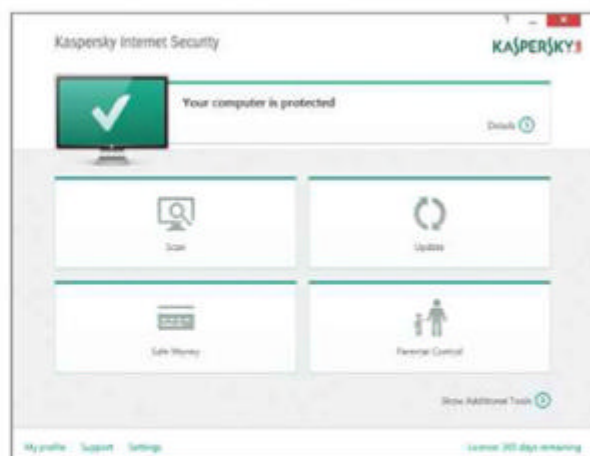
Your AV suite is the most important program on your PC. It's your body armour on the malware battlefield. If you choose and use your AV wisely, you may never have to remove hidden malware – because it stands a much smaller chance of getting into your PC in the first place.

In DTL's most recent Anti-Malware Report (www.snipca.com/15775; scroll down for the latest results as a PDF), only one product, Kaspersky Internet Security 2015 (www.kaspersky.co.uk/internet-security), blocked all 1,140 threats. But Kaspersky is a huge and memory-hogging program, so you might prefer the lighter ESET Smart Security (www.eset.co.uk/Home), which came a close third behind Kaspersky and Norton Security (www.snipca.com/15822). Both ESET and Kaspersky cost £39.99 for a one-year, one-PC licence; Norton is £49.99. To buy Kaspersky for the special price of £17.99 (and thousands of you already

have), see our Reader Offer on page 54.

The best free AV is Avast Free Antivirus (www.snipca.com/15823), which has fared very well against its paid-for rivals in all DTL's recent tests and includes an 'intelligent anti-malware' scanner that detects threats no-one has even heard of yet. Its paid-for version (£39.99) also has a 'virtual window' tool that lets you conduct online transactions without being detected by hackers using rootkit malware.

Don't use Microsoft Security Essentials (MSE, www.snipca.com/15824). MSE is free and made by Microsoft (trustworthy, you'd think), but the program has failed dismally in all DTL's lab tests since 2013. If it's on your PC, get rid of it and install an AV that works.



Kaspersky Internet Security 2015 was the only AV program to block all threats in our latest lab tests

Whatever AV you choose, it should be your one and only. Two or more AV suites will conflict with each other and neither will work properly, leaving you unsafe. Malwarebytes Anti-Malware Free is not an AV and can be run safely alongside your AV.

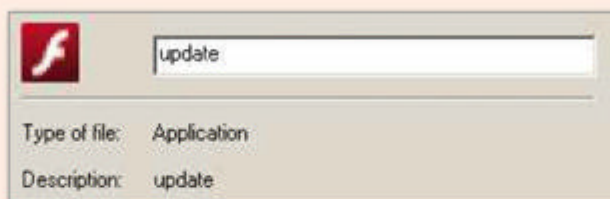


IS THIS MALWARE HIDING IN YOUR PC?

Zeus may be the best-known invisible infection currently doing the rounds, but it's not the only one. In no particular order, here are today's most prevalent silent bugs, according to Kaspersky's Securelist (<http://securelist.com>) and the Sophos Malware Dashboard (www.snipca.com/15833)*.

CARBERP: The name of this Zeus-like rootkit Trojan is the only thing we like about it. Its Russian masterminds were arrested in 2012, but its **source code** has since been released on to the internet, so hackers are now tweaking it into scary new versions (www.snipca.com/15838).

DYRE: Also known as Dyreza, this Trojan



Russian Trojan VicePass hides inside a fake Flash Player update

first emerged last June, when it broke into some of the world's biggest banking computers. Its latest version secretly sends spam using people's Outlook accounts, then deletes itself (www.snipca.com/15832).

UPATRE: A tiny program that hides in emails sent by the Dyre Trojan, it sneaks past your AV software and installs Zeus on your computer (www.snipca.com/15835).

PUSHDO/CUTWAIL: A "little-known BIG problem", in the words of the virus-watchers at the Internet Storm Centre (www.snipca.com/15848), this secretive botnet was first recognised in 2007, but has re-appeared, mainly as a way to spread Dyre.

VICEPASS: A new Russian Trojan that poses as a Flash Player update to break into your router's admin settings. Once there, it steals data from devices on your Wi-Fi network (your tablet, for example), then deletes itself. All the while, you'll have had no idea it was there (www.snipca.com/15834).

(*except the ones so well hidden that no-one has found them yet...)

Cut down your installer habit

Nothing you do on your PC is safe unless your AV is enabled and up to date. However, you can help it by cutting out ways for malware to reach your system. One option is to stay off the internet completely, but we wouldn't recommend that – the internet is fantastic and mostly safe, especially if you use a free adblocker such as Adblock Plus (<https://adblockplus.org>). The next best option is to stop using software installers.

When you install software, you give its setup wizard privileged access to your Registry and hidden system folders, so it can plant program files and settings there. If adware can get into your system this way, so can invisible malware. So think twice before running an installer for a free program from a developer you've never heard of.

Portable programs are a safer alternative. Most of the security tools we've mentioned here are portable, which means they don't have to be installed at all. On the downside, they don't update automatically because they



Check for hidden malicious components in any file or URL using VirusTotal online

don't insert any files into your Registry. They're also easy to lose track of in your PC, because they're not indexed as software by Windows. Still, if we had to choose between a PC full of hidden portable tools and hidden malware, we'd go for hidden portable tools any time.

Free web-based tools are another great alternative. They don't need to be

downloaded, let alone installed. You can edit photos online (Pixlr, www.snipca.com/15825), edit and manage documents online (Office Online, www.snipca.com/15826), check for hidden malware in any file (including EXE files) or URL using the online version of VirusTotal (<https://www.virustotal.com>) and much more, all in your browser. **ca**

NEXT ISSUE On sale Wednesday 15 April

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Every free program, tablet app and security tool you'll need this year



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Sort out your PC's files and folders – manage mess and save space

Can you spot the tech hoaxes?

All these daft tech stories may sound like 1 April fakes, but seven are true. Can you tell which three are fake? Answers upside down at the bottom of the page. No peeking!



"With this tweet, I thee wed"



1 Sony patents vibrating SmartWig

Sony is currently working on a SmartWig intelligent hairpiece that links to your PC, tablet or phone via Wi-Fi. According to Sony's patent application, SmartWig uses vibration signals to communicate with its wearer, for example by issuing directions or reminders. Sony says SmartWig could be made from "horse hair, human hair, wool, feathers, yak hair, buffalo hair" or synthetic material.

2 Get married on Twitter

Twitter has launched a wedding service in the US that allows couples to get legally married by sending a tweet to each other containing the hashtag #ido. The company hopes to market it to long-distance couples who fall in love online, but have yet to meet.

3 New scratch 'n' sniff Raspberry Pi

The makers of the hugely popular mini-PC Raspberry Pi are bringing out a limited-edition 'scratch 'n' sniff' version. A panel built into the motherboard emits the smell of fresh raspberries when rubbed. The odour has been synthesised from raspberries growing in a pick-your-own farm near the Raspberry Pi offices in Cambridgeshire.

4 Robird patrols airports

A Dutch drone company has created a £1.5m robo-falcon to scare smaller birds away from airports and prevent them flying into plane engines. The bogus raptor, named Robird, looks and sounds like a peregrine falcon and is currently undergoing training by clearing gulls from a Dutch municipal dump.

5 3D-print your own Jeremy Clarkson Hungry Hippos

Toy makers have released a special 3D-print-your-own Jeremy Clarkson edition of classic children's game Hungry Hippos. The game, Hungry Hungry Clarksons, marks the *Top Gear* presenter's controversial failure to obtain a steak for dinner while recently filming the BBC show. Clarkson's bobbing head is available to download and 3D-print at home in various colours. (3D printer and Hungry Hippos board not included.)



You, too, can play Hungry Hungry Clarksons – or can you?

6 Six Nations grass recycled for smartphone

Phone company O2 has created a fully working smartphone made from grass cuttings collected at Twickenham Stadium during the 2015 Six Nations rugby tournament. The phone is made from tens of thousands of blades of grass, many of which had been trodden on by famous international rugby players.

7 Hamsters are the new smartphone zombies

In more smartphone news, a new app has been built to create a 3D environment for hamsters to run in. Once the phone is attached to the cage, the app is activated when the hamster starts running on its

wheel. The hamster believes it is scampering through virtual-reality scenes such as fields and tunnels.

8 Read books on your shoes

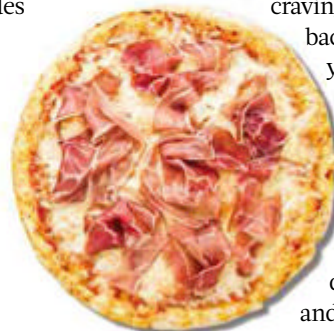
Lithuanian fashion designers have created shoes from flexible e-ink display material that allows wearers to customise the pattern or even read books on their feet. The shoes can be charged while you walk, thanks to a special wireless module in the sole. Currently available as high heels only.

9 Monkey owns selfie copyright

A British photographer has lost a landmark copyright battle to a macaque monkey. David Slater was trying to photograph the primate when it snatched his camera and took a selfie. When Slater discovered the photo was being distributed online without his permission, he took the case to the Copyright Office – which ruled that Slater didn't own the photo anyway, the monkey did.

10 Pizza Hut can read your mind

Can't decide what toppings to have on your pizza? Don't worry – Pizza Hut's new app can read your subconscious cravings and send the data back to the kitchen before you even know you're hungry. The company's eye-tracking technology works by detecting your split-second reaction to 20 icons including diced ham, sweetcorn and pineapple. [ca](#)



Can Pizza Hut's new app tell what toppings you want?

Shut down your PC faster safer &



Slow shutdowns can be just as frustrating as slow boot times. **Jonathan Parkyn** explains how to make your PC shut down quickly and safely every time

When we talk about speeding up a slow computer, the focus is often on making it start up faster. But what about shutting down? A PC that hangs for ages when you're trying to turn it off, or that throws up alarming error messages whenever you click the 'Shut down' button, can be just as frustrating as one that takes an eternity to boot.

There are many possible explanations for a computer that finds it difficult to switch off – troublesome drivers, background processes, hidden spyware and other pests. Like a lot of PC troubleshooting, the key to success is to employ a process of elimination that will reveal the cause of the problem and a means to fix it.

Here, we'll outline the main underlying problems that cause this type of behaviour,

then show you how to fix them and banish slow shutdowns forever.

Cure hardware hangs

Dodgy hardware drivers can often cause shutdown problems. If your PC has only recently started shutting down slowly, have a little think – did you install a device recently or add a new PC accessory, such as a new mouse?

If so, uninstalling it may solve your problem. Open your Windows Device Manager by clicking Start, then right-clicking Computer and selecting Manage in Windows 7 (in Windows 8/8.1 you can just right-click Start and select Device Manager). Locate the device that you suspect might be the spanner in the works, right-click it and select Uninstall. Then shut down your PC and physically unplug the device. Next, start your PC

and try shutting down again to see if it's made a difference.

Making sure all your drivers are up to date can be another way to resolve a hardware problem. Use a program like IObit's Driver Booster 2 (www.snipca.com/15758) to find and update any old drivers on your system.

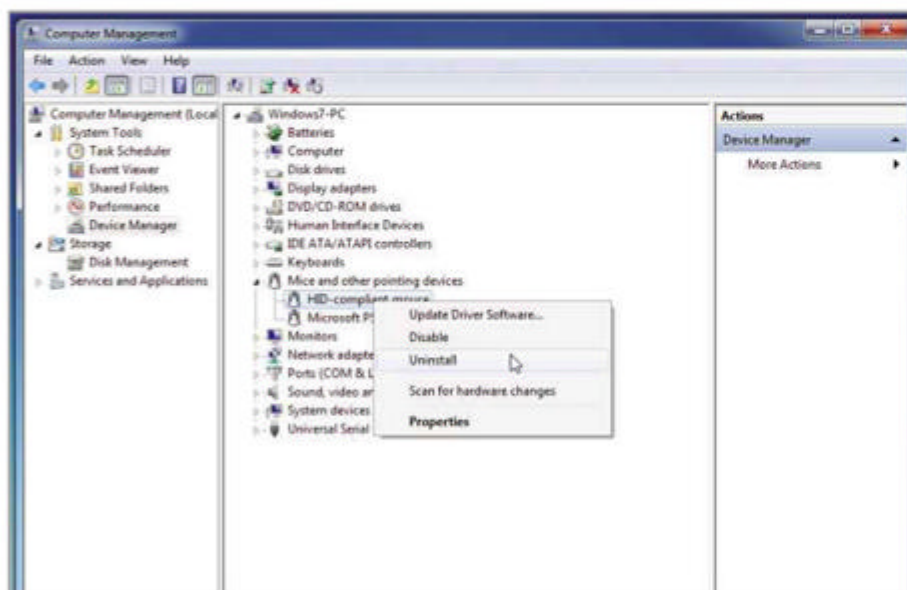
Be aware that, while Driver Booster 2 is free, it has a dreadful installer that's packed with unwanted extras. Be careful to opt out of any bundled software, and don't rush to click the Finish button (see Named & Shamed, Issue 444). Once it's installed, Driver Booster 2 does at least do its job without asking for money, unlike supposedly "free" driver-updating programs such as SlimDrivers.

You should consider giving your system a thorough going over with a free tool such as CCleaner (www.piriform.com/ccleaner), which can purge your PC of other junk files that could be hindering the shutdown process.

Solve software slowdowns

When you try to switch off your PC, do you see an error message telling you that a program is still running or preventing Windows from shutting down? This usually means an application hasn't been closed properly. More often than not you'll see a list of programs in the error message. Click Cancel and check for any unsaved work or running programs, then save and close them before clicking 'Shut down' again.

Not all software problems are as easily diagnosed. If you're seeing this kind of error message in situations where there's no obvious sign of any applications



Uninstalling recent hardware or updating drivers may solve shutdown problems



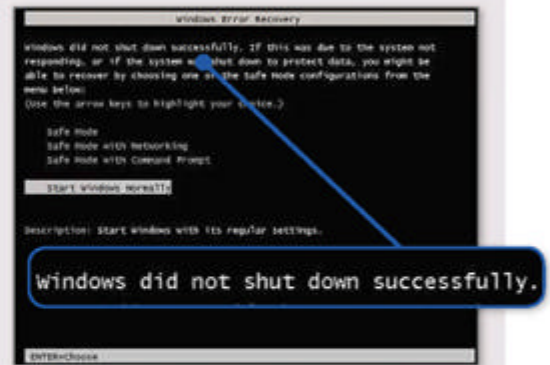
WHY YOU SHOULDN'T UNPLUG YOUR PC TO SHUT IT DOWN

If your PC is taking the best part of a day to shut down, you may be sorely tempted to pull the plug on it and force it to switch off against its will. However, we'd advise against it unless you're absolutely sure your computer has stopped responding.

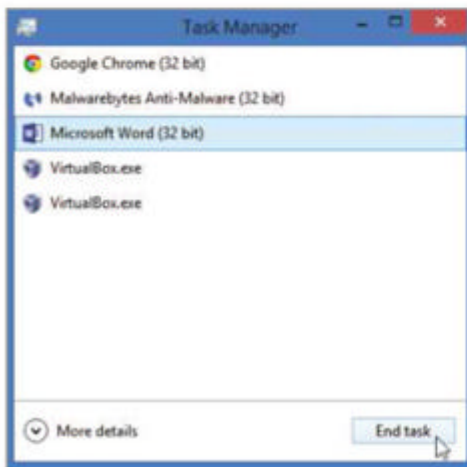
Windows often uses the shutdown process to install updates or apply changes, and interrupting these could damage your PC. To allow for this possibility, leave your computer alone for anything up to 10 minutes after shutdown.

If it still hasn't switched off at this point and there are no on-screen messages relating to updates, you might consider holding down the power button to force it to switch off. Note that doing this will probably produce an error message, next time you start up, telling you that Windows didn't shut down successfully.

If you're experiencing this type of problem on a regular basis and none of our other tips have helped, then you could consider performing a clean re-installation of Windows (see our Cover Feature in Issue 444).



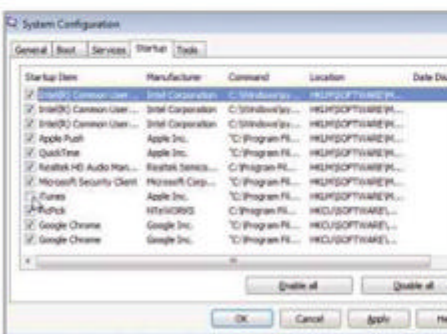
If you force your PC to shut down, you'll see an error message like this when you restart



You can force a program to close via the Task Manager, but it should be a last resort

actually running, then one of your programs may be struggling to close properly. If this is the case, click Cancel, right-click the Taskbar and click Start Task Manager, then click Applications (Windows 7) or Task Manager (Windows 8/8.1). If there's a program listed, it's likely to be your culprit.

If you can't close the program in the normal way, try highlighting it and clicking 'End task'. Bear in mind this method can cause you to lose work.



Running startup items using the System Configuration tool can help shut down your PC faster

In the longer term, if these programs continue to cause you problems, you should try updating them or uninstalling and reinstalling them.

Fix startup to fix shutdown

It may sound counter-intuitive to suggest speeding up startup, but slow shutdowns are often caused by background processes that are set to run whenever you boot your PC. By limiting the programs that run on startup, you'll also be limiting the processes that need to be stopped when Windows closes down.

In Windows 7, click Start, type **msconfig**, press Enter, then click the Startup tab. In Windows 8/8.1, open the Task Manager (see previous tip), then click 'More details' (if shown) and the 'Start-up' tab. Now, look through the programs listed. There are likely to be several here you definitely don't need (iTunesHelper and Adobe Reader, for example) – just don't disable anything important, such as your security software. Run a quick Google check to establish what each one actually is before unticking any you don't need (Windows 7) or right-clicking and selecting Disable (Windows 8/8.1). Restart your PC for the changes to take effect.

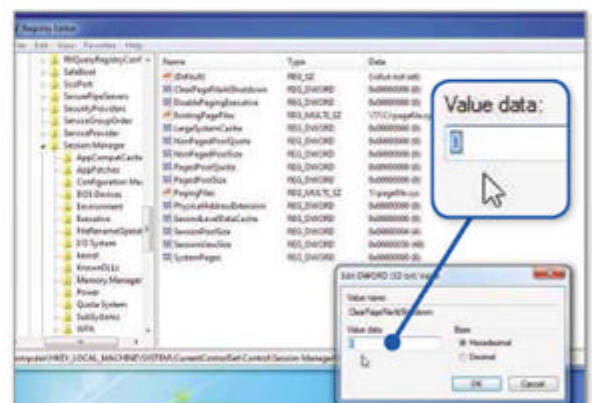
Hack the Windows Registry to speed up shutdown

If Windows is set to clear its **page file** when you switch off your PC, this can seriously slow things down. Some security programs enable this automatically, but you don't

need it unless you're using a shared or public computer, and you can safely disable it via the Registry.

Open Registry Editor (Regedit) by typing **regedit** into Start and pressing Enter. Navigate through the following path: **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Memory Management** then double-click the **ClearPageFileAtShutdown** entry. If the value shown is 1, this means your PC is set to clear the page file. Change it to 0, click OK and close Regedit, then restart your PC.

You can also edit the Registry to shorten the time Windows waits for processes to stop before it closes the system. Open Regedit again and navigate through the following path: **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control**. Double-click **WaitToKillServiceTimeout**. Here you'll see a value somewhere between 5000 (5 seconds) and 12000 (12 seconds). Change it to 2000 (2 seconds), click OK, then close Regedit and restart your PC. **ca**



If your page file is set to clear on shutdown, disable this using Registry Editor to switch off faster

Things to do with an old XP PC

PART 1

Install Linux

In the first of a new series on how you can breathe new life into your old XP PC, Jonathan Parkyn shows you how to install a Linux operating system



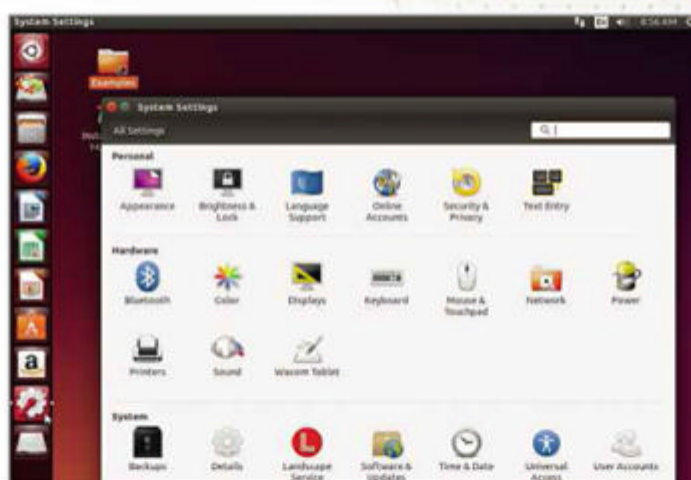
When Microsoft withdrew support for Windows XP last year, millions of us faced a pretty stark choice. Carry on using XP and risk malware, try installing Windows 7 or 8/8.1, or fork out for a new computer.

Now, one year after we examined these choices in some detail (see Issues 415 to 420), the dilemma has become even more pressing. Even if you managed to upgrade Windows, you'll know that your trusty old machine may be nearing the end of the line – especially if you plan to move on to Windows 10 when it gets its full release later this year.

Over the next few issues, we'll explain how to save your old XP PC or laptop from a landfill site by using it in new ways. We think you'll be surprised to learn just how useful that old computer of yours can still be. We'll start by showing you how to turn it into a fast secondary computer running Linux.

Why Linux is a great fit for your spare PC

In Issue 418 (page 56), we suggested Linux as a viable alternative to Windows 7 or 8/8.1. It also complements Windows well, so if you have bought a new PC, don't throw the old one out – repurpose it instead with Linux.



Replace Windows XP with Ubuntu and you can carry on using your PC safely for years

If Linux sounds like a foreign language, it's one you may already be familiar with. You might already be running a Linux-based system alongside your Windows 7 or 8/8.1 PC – it's called Android (Google's hugely popular mobile operating system).

There are a number of Linux-based systems for PCs and the most popular is Ubuntu (www.ubuntu.com), which we'll come to in a moment. Linux systems bear more resemblance to Windows than Android, for the simple reason they are designed to run on PCs rather than phones or tablets.

Crucially, Linux won't struggle running on older PCs that may lack the system requirements to support newer versions of Windows. In fact, some versions of Linux have been specially designed to run

on older PCs. A Linux OS (known as a distribution, or 'distro' for short) can allow you to carry on using your old computer safely for the foreseeable future. What's more, unlike Windows, Linux is free.

Choose the right Linux distro for your old PC

Some Linux systems are specifically designed for certain types of specialised tasks. With the Linux distro KodiBuntu (<http://kodi.tv/download>) running on your old PC, for example, you

could convert the computer into an all-in-one entertainment system to play music, films, TV shows and more.

Install the distro OpenMediaVault (www.openmediavault.org) or Amahi (www.amahi.org), on the other hand, and you could turn your PC into a free network storage device (NAS) or home server, to back up your files and access them from anywhere.

But if you'd prefer to revamp your old PC and use it as a spare computer, install Ubuntu. It's similar to Windows and provides access to extensive libraries of free programs and applications.

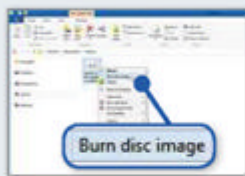
Where to get your Linux distro

If you opt for Ubuntu (see our installation guide in the box opposite), be sure to get

HOW TO INSTALL UBUNTU

STEP 1

If your old PC is running XP, we recommend downloading your Linux distro using a Windows 7 or 8/8.1 PC, for safety reasons. Download the ISO file, insert a blank DVD, right-click the ISO file and select 'Burn disc image' or 'Burn disk image'. When the process is complete, run the DVD in your XP computer. You'll eventually see a welcome screen.



STEP 2

You'll now be offered the option to either try Ubuntu or install it. Trying it runs Ubuntu directly from the DVD without affecting your Windows installation in any way. If you decide to keep it, boot your PC with the DVD in the drive again and this time select the install option.



STEP 3

Follow the remaining on-screen steps, then choose 'Erase disk and install Ubuntu' when prompted. Select your location and keyboard layout, then choose your username and password. When the installation is complete, eject the DVD from the disc drive and restart your PC.



the most recent Long Term Support (LTS) version (14.04.2), which offers five years of security updates and fixes. Download the 32bit disk image (ISO file) from www.snipca.com/15763. The only other thing you'll need is a blank DVD to burn the ISO file to. It's possible to install Linux from a USB stick, but some older PCs can't boot from USB devices.

Depending on your PC's specifications and current setup, you may also need to change the boot order in your computer's BIOS, which you can access by repeatedly tapping a specific key (usually Del or F2)


during startup. Look for a 'Boot priority' setting (or similar) and make sure that CD/DVD is at the top of the list.

If there are any files on your XP PC that you want to keep, back them up before installing Linux.

Make sure your old PC can support Linux

Linux tends to be less demanding of a computer than Windows. But if your machine is more than five or six years old, make sure it meets the minimum system requirements.

To run Ubuntu, for example, you'll need at least a 700MHz Celeron processor, 512MB RAM, 5GB hard-drive space, a 1024x768-pixel display and either a CD/DVD drive or a USB slot to install the ISO.

If your PC's specifications fall short, you could opt for a lightweight alternative, such as Lubuntu (www.snipca.com/15762). Based on Ubuntu, it will work on PCs with Pentium 4, Pentium M or AMD K8 processors. Lubuntu is designed for efficiency and, as a result, it's really fast. 

Computer active

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You'll find our six-part Windows XP Survival Guide on the 2014 Back Issue CD, which contains all 26 issues of *Computeractive* from last year. Running between Issues 415 and 420, the guide gave complete instructions on how you can continue to use XP safely. All the advice we offered then remains as relevant now.



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Problems Solved

PROBLEM OF THE FORTNIGHT

Why has Outlook stopped working?

Q I use Windows with Outlook as part of Microsoft Office. It's all worked fine for years, but recently when I launch Outlook I see a message telling me that errors have been detected and that I need to quit all email applications.

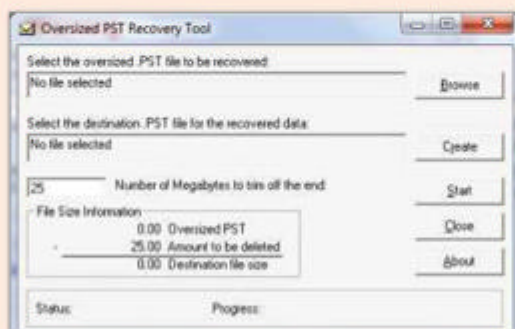
So I do this then launch Outlook again and the same thing happens. It seems to be stuck in this loop. Nothing else is wrong with my PC, and all my other Office programs seem fine. I cannot think why this has suddenly happened after all this time. I really need to rescue my email. Help!

Kingston Davis

A You didn't say specifically which version of Office you have but older versions of Outlook suffer from a problem with something called the Personal Storage Table (or PST), which is the file that contains all your emails. If you let this file get too large (specifically, over 2GB) then Outlook is unable to handle it, and at that point refuses to open. This can happen without warning – as in your case.

There's good news and bad news. The good news is that this is a known problem for which Microsoft long ago issued a remedy. The bad news is it's only a partial fix that involves electronically chopping off the tail end of your PST file, resulting in the loss of some emails. There's no way around this but, by trial and error, you'll be able to restore the vast majority of your emails. We'd suggest backing up before proceeding.

Visit www.snipca.com/15386 and download the free 'Oversized PST and OST crop tool'. Next, use Windows Explorer to create a temporary folder on the Windows Desktop then double-click the downloaded file, click Browse, choose the folder you just



Use Microsoft's Oversized PST Recovery Tool to recover space in Outlook and make it work again

created and click Unzip.

Open the temporary folder and double-click the file called PST2GB.exe. Click Continue. Click Browse and navigate to your PST file (if you don't know where this is use Windows Explorer's search bar to look for '*.pst' – and also make a note of its size), click to select it and then click Open. Now click Create, choose a location for the cropped PST file, type a name for it and click Save.

Next comes the trial-and-error bit. You need to get the PST file below 2GB. Chop too little and Outlook will still refuse to open the truncated file; chop too much and you'll lose more emails than necessary. So, if your PST file is 2.1GB, say, then type 110 into the box labelled 'Number of megabytes to trim off the end'. Click Start and then wait: it can take some time.

Now run Outlook's Inbox Repair Tool, by typing `scanpst.exe` in the Start menu search bar and clicking the search result. Click Browse, select the truncated PST file you created and then click Start.

Finally, delete the old PST file (but remember to keep a backup), launch Outlook and import the new PST (depending on which version you have, open the File menu then 'Import and Export'). If this doesn't work, repeat the whole process, choosing an incrementally larger amount to crop from your PST file.

Can I rescue videos from an unfinalised disc?

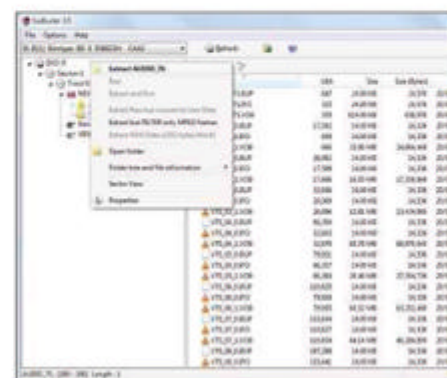
Q I took video of a friend's wedding and transferred the footage to a DVD. However, I forgot to finalise the disc and now I can't access the film. The original tape got chewed up, so I really need to get this footage. Is there any way?

Alan Merser

A Do you still have access to the computer and burning software used to create the disc? If so, we recommend using that to try to finalise the disc. Look in your software's Tools or Burn menu for a Finalize option.

Failing that, there are a couple of specialist tools that can access and recover data stored on unfinalised discs. Unfortunately, both are paid-for programs but they will let you use them free to discover if your data is recoverable. At that point, you can obviously decide whether you're prepared to pay to get it back. The tools work slightly differently, so one might succeed where the other fails.

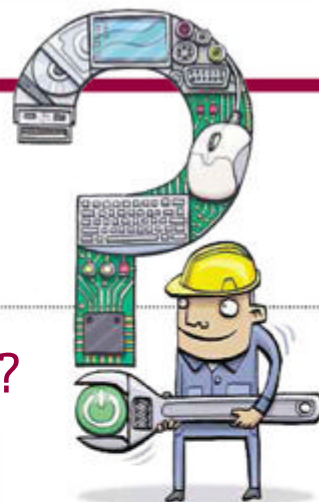
Start with IsoBuster (www.isobuster.com). Pop your disc in, right-click the AUDIO_TS or VIDEO_TS folder and choose Extract. If the program is able to do the job, it will ask you to pay to register. If not, try CDRoller (www.cdroller.com). The process is much the same: tick the folders you want to recover, then click the Recover All button and follow the prompts.



Use IsoBuster to recover audio or video content from an unfinalised disc

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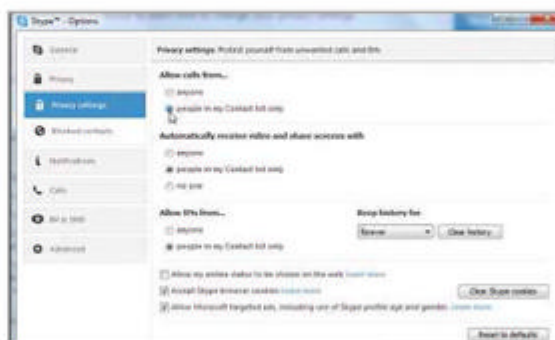


How do I deal with suspicious Skype contacts?

Q Our daughter lives in the US, so we Skype her for about an hour each weekend, sometimes using our Windows 8.1 laptop and other times on the Windows 7 desktop computer upstairs. Both have security software installed. Over the past month several unwanted requests for new contacts with dubious names have appeared, requesting to add me as a contact. Neither of us have any idea who these suspicious-sounding people are, and we have no intention of finding out. But how did they get our name and how do we get rid of them without clicking on them? What would happen if we did click?

Gwynne & Maureen James

A Put simply, these are the Skype equivalent of email spam: unsolicited contact requests sent en masse in the hope that someone will take the bait and accept. They find their targets in any number of ways, either buying a list of known Skype user names or simply by using the search facility and



Tweak your Skype privacy settings to protect yourself from spam contact requests

then working through the list of results (you could do this yourself, if you were so inclined).

Were you to click you'd probably be offered a piece of enticing or miraculous news, like winning a lottery you didn't know you'd entered or a share of millions of dollars in an offshore account – all in exchange for your bank account details and an upfront 'administration payment', of course. In short, Skype is just another conduit for the same old scams.

The answer is to tweak your privacy settings so that only people you know can contact you. In the Windows 8/8.1 (full-screen) version of Skype, move your cursor over the top-right corner of the screen and then click Settings followed by Options. Now select Privacy and, under both

the 'Who can call you?' and 'Who can send you instant messages?' headings, choose 'Only my contacts'.

For the benefit of Windows 7 users suffering the same problem, select Options from the Tools menu, then click Privacy on the left followed by Privacy Settings. Now, under the 'Allow calls from', 'Automatically receive video and share screens with' and 'Allow IMs from' headings, choose the 'people in my Contact list only' button. Click Save to finish.

Can I add another USB hub to my USB hub?

Q I have a Windows 7 laptop with two USB ports. In one of these I've attached a four-port USB hub, giving me a total of five USB ports. However, I frequently find myself wishing I had another port or two, to keep all my peripherals attached while retaining spare sockets to charge my various mobile devices. Would it be okay to add another hub? And, out of curiosity, could this be attached to a port on my existing hub, or should I plug it into the computer's second port?

Sylvester Poole

A Yes, this is possible. Indeed, you can **daisy chain** up to 127 USB devices from a single USB controller (which is what your laptop probably has). They can also be spurred

off from any port, meaning directly from your laptop or from the existing hub.

That said, there are a couple of things you should bear in mind. First, the more devices you have sharing the available USB **bandwidth**, the slower connected devices will transfer data. This is unlikely to be much of a problem unless you're planning to attach 127 external hard drives that are permanently busy reading and writing data.

Power is another potential stumbling block. A single **USB 2.0** socket supplies up to 500mA current at 5V. If you're using unpowered USB hubs, this could quickly get eaten up by your attached devices – especially if you're charging smartphones and tablets. So, shop around for a powered hub.



Use a powered USB hub if you plan to attach a lot of devices to your computer

Problems Solved

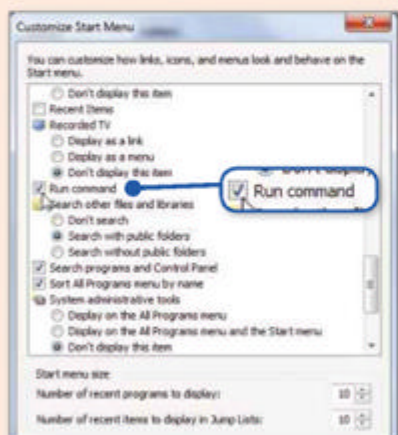
Where is the Run option in Windows 7?

Q Because Microsoft has ended support for Windows XP, I have reluctantly upgraded to a PC with Windows 7 Home Edition, which a local computer shop built for me because I could not find anything other than Windows 8 PCs elsewhere. I have to say that I'm pleasantly surprised by Windows 7, but there is one thing that bothers me. Where has the Start menu's Run command gone? Admittedly I don't use this often, but I read a tip somewhere recently that mentioned clicking Start and then Run, but... no Run command on my Start menu! I checked back on my old Windows XP computer and there it is. Why has Microsoft removed this, and is it possible to put it back?

Michael Cooper

A We don't know why Microsoft removed the Run command, but it is just hidden by default, and not actually absent from Windows 7.

Restoring it is easy. First, right-click the Start button and choose Properties. Next, on the Start Menu tab, click the Customize button. Now scroll down through the list to find and tick the 'Run command' box. Click OK twice and your Start menu will once more display the Run command.



Tick the 'Run command' box to restore the option to the Start menu

Why can't I run LibreOffice updates?

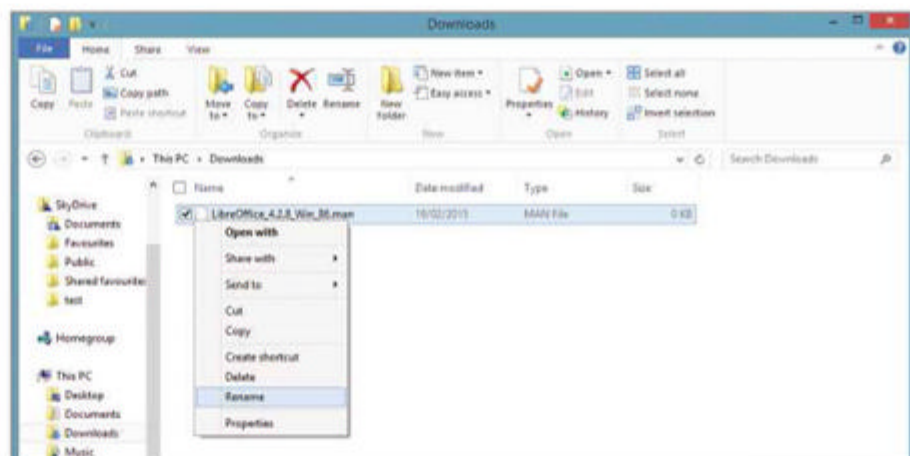
Q I have a Windows 8.1 laptop on which I've installed LibreOffice. On launching it recently, I was told an update was available that had to be downloaded manually – which I did. The file (called 'LibreOffice_4.2.8_Win_86.man') downloaded correctly, but will not run because my PC asks me which program I wish to use to run it. I opened it in Notepad, but this only showed lots of code. What am I doing wrong? I use Internet Explorer, in case that's important.

Henry Wood

A This is caused by a configuration on one of LibreOffice's download servers, or more likely one of its **mirror servers**, and the way that Internet Explorer (IE) downloads from them.

Basically, unless it received information in a specific way from the server, IE will misidentify the .msi file type ('Microsoft installer') as .man ('Unix manual'). Windows cannot run Unix files, which is why you get this error message.

There's not a lot you can do about the setup of the remote download servers so, rather than getting into the technical details as to why this happens, we'll just tell you how to fix this – and that's simply to rename the downloaded file to restore the .msi extension. In Windows 8.1, press Windows key+E to open File Explorer, then navigate to your downloads folder, click to select the LibreOffice_4.2.8_Win_86.man file, tap F2 to rename it and then replace '.man' with '.msi'. You can now double-click it to launch your update.



Rename the LibreOffice_4.2.8_Win_86.man file so that you can run updates

Why should I buy a large SSD?

Q Your recommendation that one of the best upgrades is to install a solid-state drive (SSD)

has been repeated several times. I believe the idea is that Windows is installed on the SSD, leaving the conventional hard drive free for programs and data. You also recommend the Crucial MX100 512GB SSD. While I understand the speed benefits with **32bit** Windows 7 requiring just 16GB of space, why would I buy a 512GB SSD when a much smaller (and cheaper) SSD would do the same job?

Stephen Ford

A You could indeed buy a smaller SSD if you're happy to keep using a conventional hard drive to store your data. However, as prices



drop it's beginning to make more sense to buy a larger SSD, which can then be **partitioned** to serve as two logical drives – one for Windows and the other for your data. You could still keep using your conventional hard drive, if you wanted.

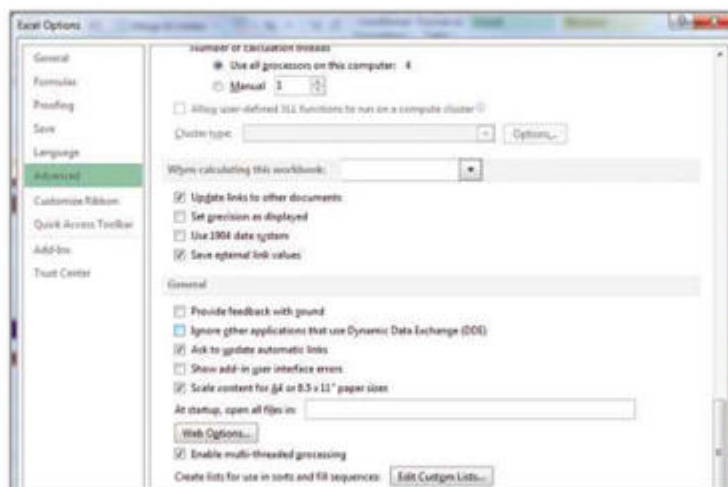
Why can't I open Word or Excel files?

Q When I try to open Microsoft Word or Excel files that I have created on my own computer, I continually get the following message: "There was a problem sending the command to the program". To get around this problem I have to open the documents using OpenOffice. Is there a solution to this problem? Any help would be appreciated.

Noel Gallagher

A There are a couple of possible causes for this problem, the main suspect being an obscure feature in Excel.

You didn't tell us which version of Office you're using but, if you're using either of the latest two editions (2010 and 2013), begin by clicking the File tab followed by Options. Now, click Advanced in the left-hand pane and scroll through the list to find the General section. Here, find the box labelled 'Ignore other applications that use Dynamic



Untick the box labelled 'Ignore other applications that use Dynamic Data Exchange (DDE)' to open Word or Excel files by double-clicking

Data Exchange (DDE)'. This option is actually disabled by default, but it's possible that in the past you've accidentally ticked it while tweaking some other setting. So, remove the tick and then click OK.

This should enable you to once more double-click Excel files and have them

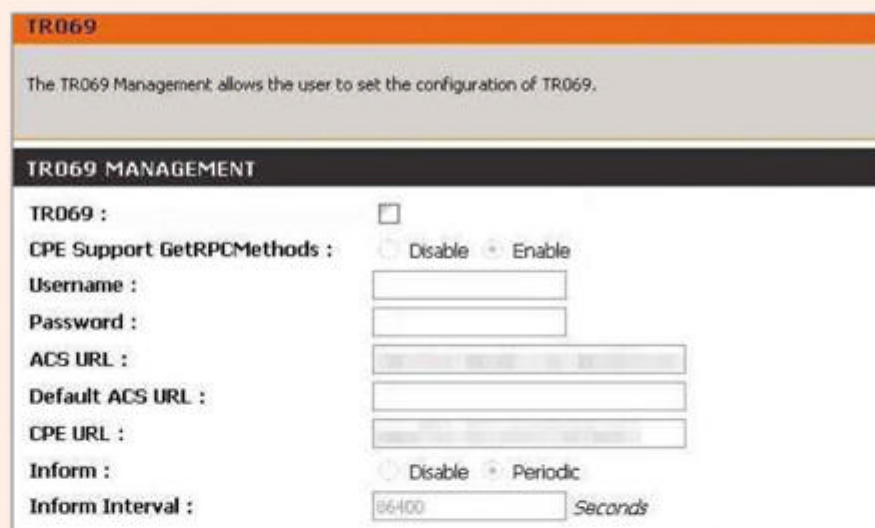
open in Excel, and it might also fix the same problem you're experiencing with Word. But, if not, you can quickly re-establish Word's file associations with the following trick. First, click Start, type **run** into the Search box and press Enter. Then, in the Run box, type **winword.exe /r** and press Enter.

Does my router have an insecure backdoor?

Q I have TalkTalk broadband with a TalkTalk-supplied D-Link router, updated with the latest **firmware**. I've already changed my router's default username and password, but Avast 2015 Home Network Security flags up a network-security issue, saying it was possible to log into my router using a **backdoor** method. I telephoned TalkTalk and was told the solution was to reset the router to factory settings. I wasn't convinced but went ahead. I called TalkTalk again and was this time told the backdoor was somehow necessary for some kind of router maintenance and could not be removed. Should I be concerned by this? Can I do anything to close this backdoor?

Rowland W Williams

A We think several issues have been conflated here, apparently not helped by your discussions with TalkTalk. Some D-Link routers did (or do) contain an insecure



Untick the TR069 box to stop TalkTalk remotely accessing your router

backdoor, which can be fixed by applying the latest firmware. You say you've already done this, so you shouldn't need to worry about this. Other readers can check for the latest firmware at www.snipca.com/15413.

Unrelated to this – but we believe related to your concerns – is an aspect of TalkTalk's service that it calls Enhanced Remote Management. When this is enabled, as it is by default with routers supplied by the company, it

allows TalkTalk engineers access to various aspects of your router. It also lets them update the firmware remotely, so it's always up to date. Read more about it at www.snipca.com/15415.

If you're unhappy handing TalkTalk this ability, you can disable the feature. Log into your router, click Advanced followed by OK, then click Advanced again. Now, click Network Tools followed by TR-069, clear the tick from the TR069 box, then click the Add/Apply button.

Problems Solved

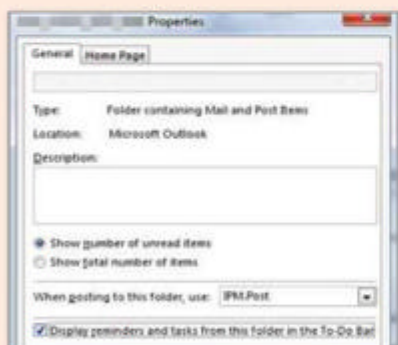
Why doesn't Outlook 2013 create tasks for all flagged messages?

Q I use Outlook as part of Office 2013, which came free with my PC. When I click the little flag icon alongside a message (so that I know to follow it up), sometimes a task is automatically created and displayed on Outlook's Tasks page, but sometimes not. I would expect (and would like) to have Outlook create a task every time I click a flag. I sort my emails into numerous different folders and I've figured out that it works always on some folders, but never on others. What am I doing wrong? Or is this a bug?

Scott Chambers

A This isn't a bug and you're not doing anything wrong. By default, Outlook 2013 (and 2010 and 2007 for that matter) creates tasks from flagged messages only if they're stored in the first Personal Storage Table (PST) file.

By the sounds of your setup, we're guessing you've got more than one PST file on the go – perhaps for different email accounts. The fix is simple, but not obvious. First right-click the PST file's name in the folder tree on the left and choose Properties. Now select the General tab and tick the box labelled 'Display reminders and tasks from this folder in the To-Do Bar'. Click OK to finish.



Create tasks for flagged emails in Outlook via your PST file's Properties

How private are Facebook groups?

Q I don't really use Facebook much myself because I'm worried about privacy, but I do have an account just to stay in touch with the lives of a few close friends and family members. Recently, I was invited to join a local society that's apparently quite active on Facebook. One of its members invited me to join its Facebook group, but I've not joined. I'm tempted, but I'm really concerned about who would be able to see what I post or discuss. This person has assured me it's a private group, so is it safe for me to sign up? And will people who know me on Facebook know that I've joined it?

Ivy Cross

A There are three types of Facebook group – Public, Closed and Secret. You can probably guess that Public is certainly not private, while both Closed and Secret are, but to differing degrees.

Anyone on Facebook can see that a Closed group exists and anyone can ask



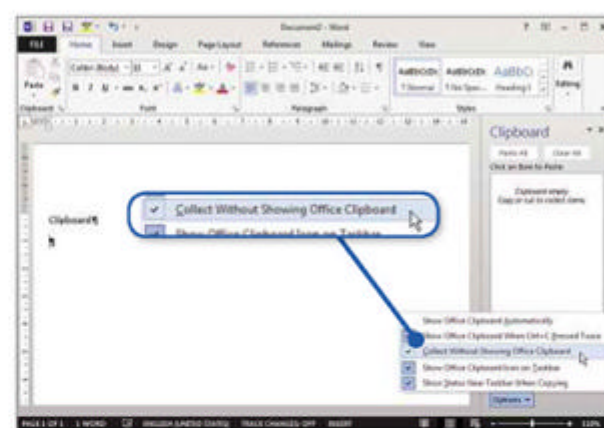
Find out more about privacy levels for various Facebook groups via the website's Help Center

to join one, but they have to be permitted access by an existing member. Importantly, anyone on Facebook can also see who is a member of a Closed group – so if you join this type of group, someone might discover that fact. Secret groups (and their members) are invisible to anyone who's not already a member of the group, and the only way to gain access is to be invited by an existing member.

Within both Closed and Secret groups, discussions are visible only to current members. For full details read Facebook's own explanation at www.snipca.com/15747 (see screenshot above).

Can I stop Word's clipboard appearing?

Q A while ago you tackled a reader's question about Word 2013's clipboard, explaining that pressing Control (Ctrl)+C twice would make the clipboard appear in a pane down the side of the program's window. That was a useful tip, but for me it's also the source of some annoyance. I have reason to copy and paste stuff all day long in Word, but I'd rather the clipboard pane stayed out of my face. Currently, it appears when I start copying, making the screen jump and reducing the editing space. Is there a way to stop this?



Stop your clipboard from appearing while working in Word by ticking 'Collect Without Showing Office Clipboard' in its options

Jason Shales

A Yes, this is very easy to do. First, bring up your clipboard as usual. Next, click the Options

button at the bottom of the clipboard pane, then untick the Show Office Clipboard Automatically option. Repeat this process, but this time tick Collect Without Showing Office Clipboard (see screenshot above). To finish, click the cross at the top right of the clipboard pane.

Why won't my new monitor display at maximum resolution?

Q I have a Dell Inspiron 560MT PC, with an Nvidia GeForce G310 graphics card and running 64bit Windows 7. I have recently acquired a BenQ GW2765HT 27-inch monitor, with a maximum native resolution of 2560x1440 pixels. I use the computer to process digital photos, which is why I want a high-resolution monitor. However, no matter what I do I can only achieve a top resolution of just 1920x1080 pixels. I've installed the very latest Nvidia drivers, but no luck. The monitor has a DisplayPort connector, but my PC doesn't, so I use the older DVI cable. How do I get my new monitor to display its maximum resolution? Do I need a new graphics card? And would this be worth doing on a four-year-old PC?

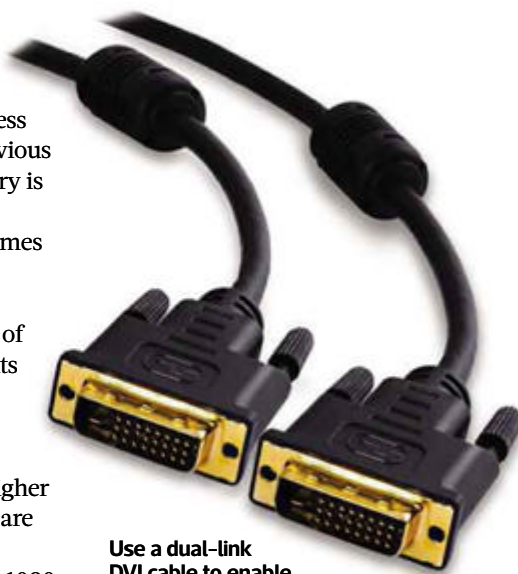
Roger Harvey

A You don't need a new graphics card because your existing one supports your new monitor's top resolution.

The problem is almost certainly with the cable that you're using. You gave us a clue when you said 'the older DVI cable', which we guess means the one used with your previous display. Adding weight to this theory is the fact that, according to BenQ's documentation, the GW2765HT comes with VGA, HDMI and DisplayPort cables – but no DVI cable.

There are various different types of DVI cable, but the pertinent variants are single link and dual link. A dual-link DVI cable has extra pins that are necessary for carrying the additional data required to drive higher resolutions; single-link DVI cables are able to transport enough data for a maximum resolution of only 1920x1080 – which is precisely the top resolution you're achieving currently.

So, by deduction we're convinced that you're using a single-link DVI cable, thus limiting what your graphics card is able to send to your new display. The solution



Use a dual-link DVI cable to enable your monitor to display at maximum resolution

is simple: buy a dual-link DVI cable, which you can pick up for just a few pounds (such as this £7 example from Amazon – www.snipca.com/15395).

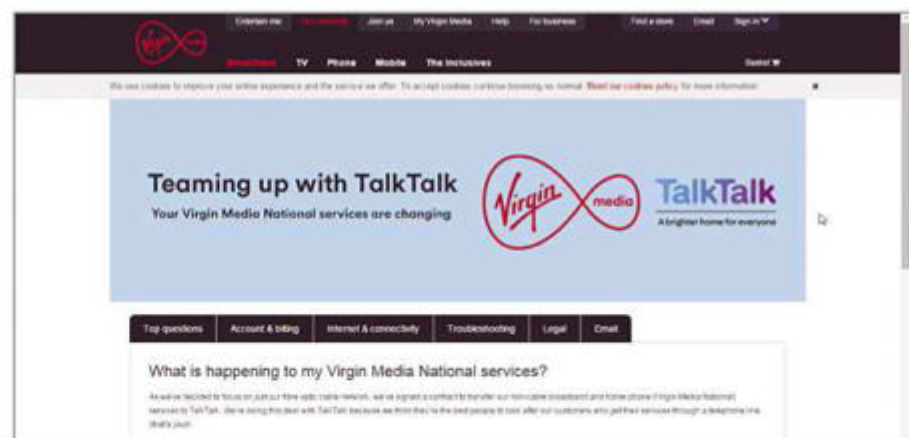
Can I keep my virgin.net email address?

Q I have just read in the papers that my virgin.net email will soon cease to exist, because Virgin Media is transferring customers to TalkTalk. I have had a virgin.net email address since the year dot. I don't use it as my main email address nor do I want to lose it. Surely Virgin could arrange emails sent to the old address to be forwarded to a new one? I gather one solution is to sign up for Virgin's fibre-optic broadband, but I live in the countryside, so there's no chance. Can you tell me what's happening and why, because Virgin has told me nothing? Is there any way to keep my virgin.net email address?

Eric Martin

A This is happening because Virgin Media is offloading its 'legacy' ADSL service (and customers) to TalkTalk to concentrate on its cable-based, fibre-optic services. Some 100,000 customers are affected. It expects to complete this process by the end of this month (April).

Yes, it would be technically possible for Virgin to offer some form of email forwarding that would keep old virgin.net email addresses alive long-term,



but the company has apparently decided that it doesn't want the cost or hassle of doing so.

We're afraid there's no solution, other than signing up for Virgin's cable services – which sound like they're not available in your rural area. You are under no obligation to switch your services to TalkTalk, but that's what will happen if you do nothing. If you do switch to TalkTalk, your virgin.net email address will continue working for 12 months; if you don't, it will be terminated 90 days after your contract ends. You'll find full details at www.snipca.com/15583.

Users of the virgin.net email service face the prospect of being transferred to TalkTalk

NEXT ISSUE

ON SALE
15 Apr

- Why can't I pay online using Microsoft Money?
- How do I move my stuff from XP to Windows 8.1?
- Can I use Google Maps offline with my iPhone?
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Partitions

Find missing hard-drive space, delete recovery partitions and change drive letters

Your PC's capacity is smaller than expected

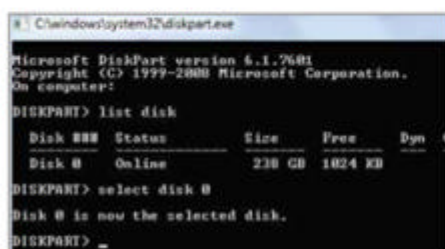
If your new PC's hard drive doesn't appear to have all the storage stated in its specifications, your computer's manufacturer may have included a **recovery partition**, which lets you restore your PC to its factory condition. To check, click Start, right-click Computer and choose Manage. Next, click Storage, then Disk Management. In the bottom of the right-hand pane you'll see a graphic of your drive partitions, along with their drive numbers. Here, you should see a partition named Recovery.

It's worth bearing in mind that Windows calculates capacity in terms of 1,024 kilobytes per megabyte, 1,024 megabytes per gigabyte and so on. Drive manufacturers, however, typically use 1,000KB instead. So, if a drive advertised as 4TB is reported by Windows as 3.7TB, the "missing" 300GB is down to the way capacity is calculated.

You can't delete your recovery partition

Manufacturers usually mark recovery partitions as protected, which effectively prevents the Disk Management tool from doing anything with them – including letting you delete them. This is often a problem when you want to re-purpose an old drive. The solution is to use the built-in Windows tool DiskPart, which integrates with the Command Prompt, to wipe everything.

Click Start, type **cmd** and press Enter. In the Command Prompt window, type **diskpart** and press Enter, then type **list disk** and press Enter. DiskPart then displays a list of all your drives, labelled



The DiskPart tool will delete everything on a drive, including recovery partitions

'Disk 0', 'Disk 1' and so on. You can use Disk Management to check which drive is which (see previous tip). Now type **select disk NUMBER**, substituting NUMBER for the relevant drive number (for example **select disk 1**), then press Enter. DiskPart will confirm the selected drive. If you're certain you want to continue, type **clean** and press Enter. Now use Disk Management to prepare the drive.

Deleting a partition doesn't free up space

You would expect that deleting a partition from your PC would automatically make the freed-up space usable. In fact, it'll remain invisible to Windows until you create a new partition, or instruct an existing partition to extend itself into the available space. You can carry out both of these tasks using Disk Management. Right-click an existing partition and click Extend Volume or, to create a new partition with its own drive letter, right-click the unallocated partition and choose New Simple Volume, then follow the prompts.

Windows won't let you create large partitions

If you find you're unable to create partitions bigger than 32GB, it's probably because your hard drive has been formatted using the **FAT32** file system. This will often be the case if you have an old PC or you've fitted a drive from an old PC.

The solution is to format your hard drive to use the newer **NTFS** file system (and lose all your data), or convert it (and preserve your data).

To format it, launch Windows Explorer or File Explorer (press Win+E), then right-click the drive and choose Format. Choose NTFS from the 'File system' menu, then click Start. If you plan to go



Re-format old FAT32 drives to NTFS to create partitions that are larger than 32GB

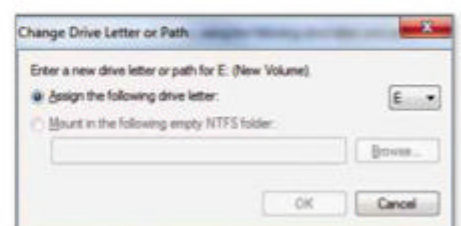
down this route, make sure you back up all your data and create a **system restore point** first.

Alternatively, preserve your data by choosing to convert the drive instead. Open the Command Prompt (type **cmd**, then press Enter), type **convert DRIVELETTER: /fs:ntfs**, replacing DRIVELETTER: with the relevant drive letter (for example, **convert d: /fs:ntfs**). Press Enter, type a name for the drive and press Enter again. Close the Command Prompt window when complete.

Drive letters are in a strange order

Adding or removing partitions can lead to non-sequential drive letters (for example, C: followed by E: then G:). This isn't a problem for Windows but it might be for your head (where is D:?). Or you might want to apply different drive letters for other reasons, such as assigning P: to the partition containing your photos.

It's easy to change drive/partition letters, but be warned: this can play havoc with programs that have been set up to use a particular drive letter, so proceed with caution. In Disk Management, right-click the relevant partition, choose 'Change Drive Letter or Path' and then click the Change button. Choose the desired letter from the dropdown menu, then click OK followed by Yes. Never change drive C: (your local hard drive).



Use Disk Management to change drive letters, but leave your C: drive well alone



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CL38 Colour 12ml	£12.99
CL41 Colour 24ml	£16.99
CL51 Colour 24ml	£14.99
CL511 Colour 11ml	£15.99
CL513 Colour 18ml	£16.99
CL541XL Colour 15ml	£15.99

Canon Originals	
BC16 BCMY 13ml	£8.99
BC16 PCPMBY 13ml	£8.99
PG15 Black 26ml	£12.99
CL18 BCMY 13ml	£10.99
CL18 PCPMBY 13ml	£10.99
PG129 All colours, each	£22.99
PG1520 Black 18ml	£10.99
CL1521 BCMYGY 9ml	£9.99
PG1520/CL1521 set of 5	£46.99
PG1525 Black 18ml	£10.99
CL1526 BCMYGY 9ml	£9.99
PG1525/CL1526 set of 5	£46.99
PG1550 Black 15ml	£10.99
CL1551 BCMYGY 7ml	£8.99
PG1550/CL1551 set of 5	£42.99
PG40 Black 16ml	£14.99
CL41 Colour 12ml	£18.99
PG50 Black 22ml	£21.99
CL51 Colour 21ml	£25.99
PG510 Black 9ml	£11.99
CL511 Colour 9ml	£15.99
PG510/CL511 Combo	£24.99
PG512 Black 16ml	£16.99
CL513 Colour 13ml	£20.99
PG540 Black 8ml	£11.99
CL541 Colour 8ml	£15.99
PG545 Black 8ml	£11.99
CL546 Colour 8ml	£13.99
KP-108IP Ink & Paper	£29.99

Brother Compatibles	
LC970 / 1000 Black	£3.99
LC970 / 1000 CMY	£2.99
LC970 / 1000 Set of 4	£11.99
LC980 / 1100 Black	£3.99
LC980 / 1100 CMY	£2.99
LC980 / 1100 Set of 4	£11.99
LC985 Black	£2.99
LC985 CMY	£2.99
LC985 Set of 4	£11.99
LC1240 Black	£3.99
LC1240 CMY	£2.99
LC1240 Set of 4	£11.99

Brother Originals	
ESP Black Series 10 Ink	£6.99
ESP Colour Series 10 Ink	£12.99
ESP Black & Colour Ink	£18.99
ESP Black Series 30 Ink	£6.99
ESP Colour Series 30 Ink	£12.99
ESP Black & Colour Ink	£18.99

Kodak Originals	
ESP Black Series 10 Ink	£6.99
ESP Colour Series 10 Ink	£12.99
ESP Black & Colour Ink	£18.99
ESP Black Series 30 Ink	£6.99
ESP Colour Series 30 Ink	£12.99
ESP Black & Colour Ink	£18.99

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No.21 Black 10ml	£7.99
No.22 Colour 21ml	£11.99
No.45 Black 45ml	£4.99
No.56 Black 24ml	£9.99
No.57 Colour 24ml	£12.99
No.58 Photo 24ml	£12.99
No.78 Colour 36ml	£9.99
No.88XL Black 58ml	£9.99
No.88XL CMY 17ml	£8.99
No.110 Colour 12ml	£10.99
No.300XL Black 18ml	£14.99
No.300XL Colour 18ml	£16.99
No.336 Black 10ml	£7.99
No.337 Black 24ml	£10.99
No.338 Black 24ml	£10.99
No.339 Black 34ml	£12.99
No.342 Colour 12ml	£10.99
No.343 Colour 21ml	£12.99
No.344 Colour 21ml	£14.99
No.348 Photo 21ml	£12.99
No.350XL Black 34ml	£14.99
No.351XL Colour 21ml	£16.99
No.363 Black 20ml	£6.99
No.363 CMY/PCPM 6ml	£4.99
No.364 Black 10ml	£6.99
No.364 PC/CMY 5ml	£5.99

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No.21 Black 5ml	£11.99
No.22 Colour 5ml	£14.99
No.38 Colours, each	£26.99
No.56 Black 19ml	£19.99
No.57 Colour 17ml	£28.99
No.110 Colour 5ml	£19.99
No.300 Black 4ml	£10.99
No.300 Colour 4ml	£12.99
No.301 Black 3ml	£9.99
No.301 Colour 3ml	£11.99
No.301B/C Combo	£17.99
No.336 Black 6ml	£12.99
No.337 Black 11ml	£18.99
No.338 Black 11ml	£18.99
No.339 Black 21ml	£25.99
No.342 Colour 5ml	£14.99
No.343 Colour 7ml	£20.99
No.344 Colour 14ml	£28.99
No.348 Photo 13ml	£23.99
No.350 Black 4.5ml	£11.99
No.351 Colour 3.5ml	£14.99
No.363 Black 6ml	£13.99
No.363 CMY/PCPM ea.	£9.99
No.363 Set of 6	£59.99
No.364 Black 6ml	£7.99
No.364 PC/CMY 3ml ea.	£6.99
No.364 Set of 4	£22.99
No.364XL Black 14ml	£14.99
No.364XL PC/CMY 6ml	£13.99
No.901 Black 4ml	£11.99
No.901 Colour 8ml	£14.99
No.920XL Black 49ml	£22.99
No.920XL Colour 6ml	£9.99
No.940XL Black 49ml	£26.99
No.940XL Colour 16ml	£16.99

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No.3 Cartridge	£14.99
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No.17 Black	£9.99
No.23 Black	£11.99
No.24 Colour	£12.99
No.26 Colour	£12.99
No.27 Colour	£11.99
No.28 Black	£11.99
No.29 Colour	£12.99
No.31 Photo	£11.99
No.32 Black	£9.99
No.33 Colour	£11.99
No.34 Black	£11.99
No.35 Colour	£12.99

Lexmark Originals	
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No.15 Colour	£20.99
No.32 Black	£22.99
No.33 Colour	£24.99
No.36 Black	£19.99
No.37 Colour	£20.99
No.100 Black	£15.99
No.100 Colours	£9.99

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At Premier Ink, we stock two types of cartridges for Epson printers - **Originals**, which are made by Epson, and **Compatibles**, which are made by a UK company called **Jet Tec**. Using **Jet Tec Compatibles** is a way of saving money, without compromising on the quality of your prints. Here're the results from two independent ink tests that agree...

"Jet Tec's colours were superb, with single greys and blacks very close to Epson...so Jet Tec wins!"

- Total Digital Photography Magazine

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- Computer Upgrade Magazine











Digital

Ink Test Winner!

Code:	Originals:	JetTec:	Suitable Printers:
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T008 Colour	£23.99 4ml	£4.99 50ml, 3 for £13.99	Photo 790, 875, 890, 895, 915
T009 Colour	£29.99 1ml	£4.99 50ml, 3 for £13.99	Photo 800, 1270, 1290
T026 Black	£39.99 1ml	£3.99 20ml, 3 for £10.99	Photo 810, 830, 830A, 825, 935
T027 Colour	£29.99 4ml	£4.99 50ml, 3 for £13.99	C62, C3000
T040 Black	£44.99 17ml	£3.99 20ml, 3 for £10.99	440, 540, 560 Photo 700, 1200
T041 Colour	£39.99 27ml	£4.99 40ml, 3 for £13.99	740, 790, 800, 890, 880, 1160
T050 Black	£32.99 15ml	£2.99 16ml, 3 for £7.99	440, 540, 560, 740, 790, 1160
T051 Black	£36.99 24ml	£2.99 26ml, 3 for £7.99	Photo 700, 790
T052 Colour	£36.99 36ml	£3.99 36ml, 3 for £10.99	Photo 700, 790
T053 Colour	£26.99 43ml	£3.99 43ml, 3 for £10.99	Photo 700, 790
T0441-4 Set of 4	£44.99	£14.99, 3 sets for £42.99	C84, C96, C94, C96
T0441 Black	£19.99 13ml	£4.99 13ml, 3 for £13.99	CX600/C650, CX640, 6600
T0452-4 Set of 4	£9.99	£3.99 13ml, 3 for £10.99	
T0481-6 Set of 6	£69.99	£19.99, 3 sets for £57.99	R200, R220, R300, R320, R340
T0481-6 Set of 6	£15.99 15ml	£3.99 12ml, 3 for £10.99	RX500, RX600, RX620, RX640
T0540-9 Set of 9	£109.99	£35.99, 3 sets for £99.99	Photo R800, R1800
T0540-9 Set of 9	£8.99 8.99	£3.99 21ml, 3 for £13.99	
T0541-9 Set of 9	£14.99 14.99	£4.99 21ml, 3 for £13.99	
T0551-4 Set of 4	£34.99	£14.99, 3 sets for £42.99	Photo R240, R245
T0551 Black	£8.99 8.99	£4.99 9ml, 3 for £10.99	RX420, RX425, RX320, RX325
T0552-4 Set of 4	£8.99 8.99	£3.99 9ml, 3 for £10.99	
T0581-9 Set of 9	£99.99	Check Website.	Photo R2400
T0581-9 Set of 9	£12.99 12.99	Check Website.	
T0611-4 Set of 4	£34.99	£14.99, 3 sets for £42.99	C68, C68
T0611 Black	£8.99 8.99	£4.99 9ml, 3 for £13.99	CX300/C350, CX400/C450
T0612-4 Set of 4	£8.99 8.99	£3.99 9ml, 3 for £10.99	CX400/C450
T0711-4 Set of 4	£34.99	£14.99, 3 sets for £42.99	SX201, SX100/C515/C520/C525/C530
T0711 Black	£8.99 7.99	£4.99 7.99, 3 for £13.99	SX400/SX450/SX515, C790/C720
T0711-4 Set of 4	£8.99 5.50	£3.99 7.99, 3 for £10.99	CX400/C450/C500/C500/C500/C500
T0791-6 Set of 6	£74.99	Check Website.	Photo 1400
T0791-6 Set of 6	£12.99 12.99	Check Website.	
T0801-6 Set of 6	£51.99	£19.99, 3 sets for £57.99	P60, R265/285/300, RX500/585
T0801-6 Set of 6	£8.99 7.99	£3.99 7.99, 3 for £10.99	AS65/650, P7X700/715/800/810
T0870-9 Set of 9	£74.99	Check Website.	Photo R1900
T0870-9 Set of 9	£9.99 11.40	Check Website.	
T0871-9 Set of 9	£9.99 11.40	Check Website.	
T0961-9 Set of 9	£74.99	Check Website.	Photo R2880
T0961-9 Set of 9	£9.99 11.40	Check Website.	
T1281-4 Set of 4	£29.99	£14.99	S22, SX125, SX130, SX235W, SX235W/C425W/C435W/C445W, SX305F
T1282-4 Set of 4	£9.99 5.50	£4.99 5.50	SX235W/C425W/C435W/C445W, SX305F
T1282-4 Set of 4	£9.99 3.50	£3.99 3.50	SX235W/C425W/C435W/C445W, SX305F
T1291-4 Set of 4	£42.99	£16.99	SX235W/C425W/C435W/C445W, SX305F
T1291 Black	£10.99 11.90	£5.49 11.90	R2000
T1292-4 Set of 4	£10.99 3.99	£4.49 3.99	R2000
T1571-9 Set of 9	£29.99 25ml	Check Website.	Workforce WF-2010W, 2510WF, 2520NF, 2530NF, 2540WF
T1591-9 Set of 9	£14.99 17ml	Check Website.	Expression Home XP30, XP302, 302, 305
T5801-9 Set of 9	£41.99 8.00	Check Website.	XP302, 305, 402, 405
No.16 Set of 4	£24.99	£14.99	Expression Photo XP750, 650
No.16 Black	£6.99 5.50	£4.99 5.50	
No.16 CMY, each	£3.99 3.50	£3.99 3.50	
No.18 Set of 4	£22.99	£14.99	
No.18 Black	£6.99 5.50	£4.99 5.50	
No.18 CMY, each	£5.99 3.50	£3.99 3.50	
No.24 Set of 6	£44.99	No.24XL Set of 6 £69.99	Expression Photo XP750, 650
No.24 BULK, each	£7.99 5.50	No.24XL BULK, each £11.99 3.80	
No.24 CMY, each	£7.99 4.50	No.24XL CMY, each £11.99 3.70	
No.26 Set of 4	£30.99	No.26XL Set of 4 £54.99	Expression Premium XP600, 600, XP700, 600
No.26 Black	£6.99 5.50	No.26XL Black £14.99 5.20	
No.26 Photo, each	£7.99 4.70	No.26XL Photo Black £13.99 4.70	
No.26 CMY, each	£7.99 4.50	No.26XL CMY, each £13.99 4.50	

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3		Plusnet: Broadband & Calls	£9.99 (£2.50 for 12 months)	12 months	17Mbps max speed	∞ unlimited	£30.00
4		Sky: Broadband & Calls	£7.50 (HALF PRICE for 12 months)	12 months	17Mbps max speed	∞ unlimited	£45.00
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6		Virgin: Broadband & Calls	£17.50 (HALF PRICE for 12 months)	18 months	50Mbps max speed	∞ unlimited **	£105.00
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9		EE: Fibre Broadband & Calls	£19.95 (£9.95 for 6 months)	18 months	38Mbps max speed	∞ unlimited	£179.40
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** Fair-usage or restriction policy applies.

Data supplied by www.broadbandgenie.co.uk. Correct as of 23/03/2015

Ofcom

Broadband Genie's helpline is powered by Simplify Digital, the Ofcom-accredited switching service

Jargon Buster

32bit A measure of how much information a computer can process at once. Most older computers are 32bit.

4K Video with a resolution of at least 3840x2160 pixels

64bit A technology that processes information in larger chunks. Most modern computers are 64bit.

802.11ac A standard for wireless networks that allows for much higher transfer speeds than 802.11n.

802.11n A standard for wireless networks that allows for high transfer speeds.

Backdoor A way of bypassing the normal security procedures in a piece of software.

Bandwidth A measure of how much information can be transferred through a connection at one time.

Beta A version of software that's being tested. Beta versions are often released so problems can be ironed out.

BIOS Basic Input-Output System. Essential software built into every PC that connects the vital components.

Botnet A group of infected computers connected together via the internet, and used to infect other PCs, send junk email and perform other criminal tasks.

Cache A temporary space for storing information.

Component A cable, usually with three to five connectors, which is used to display video.

Composite A cable with three connectors which is used to display standard-definition video.

Cookie A small text file stored on your computer by a website.

Daisy chained A wiring system in which multiple devices are connected together in sequence.

Definition A file downloaded by an antivirus program, giving it details of how to spot the latest threats.

DisplayPort A new socket for connecting monitors.

Driver A file that tells Windows how to work with a device.

Dual band Wi-Fi routers that can work on both the 2.4 and 5GHz frequencies.

Dual core When two processors are combined into a single chip.

DVI Digital Visual Interface.

Ethernet A standard used for almost all wired PC networks.

Extension A program that adds extra features to your browser.

FAT32 A system for formatting hard disks used by Windows 98 and ME.

Feedback The tactile response that the keys on a keyboard give when they've been pressed.

Firmware Basic software stored on a device to control its operation.

False positive When an antivirus program wrongly detects a malware infection.

Frame rate The number of still images, or frames, shown per second to create a moving image.

GPS Global Positioning System.

HDMI High Definition Media Interface.

Internet Relay Chat (IRC) A chat system that enables users to connect to a server using a software program or web service to communicate with each other live.

ISO file A type of image file that contains the data from a CD or DVD.

MB/s Megabytes per second.

Megapixel A measure of the amount of detail that can be recorded by a digital image.

MFP Multifunction printer. A combined printer and scanner.

MicroSD card A small type of memory card. Can be converted to SD size using an adapter.

Micro SIM A smaller version of SIM cards used in mobile phones.

Mirror server A website that contains the same downloadable software as others, so it's available from more than one place.

NAS Network-attached storage. A hard drive attached to a network that can be shared by other PCs.

NTFS New Technology File System. A file system used by all recent versions of Windows.

Noise Visible dust-like speckles that appear in some camera and TV images.

Open source Software that can be modified by anyone.

Optical audio A socket that provides a high-quality sound signal between computers, amplifiers, CD and DVD players and more.

Page file A temporary storage area that Windows uses as virtual memory.

Partition A large hard drive can be split into two or more partitions or 'virtual' drives. Once partitioned, each section is treated by Windows as though it were a separate drive.

Plug-in A small program that adds extra features to your web browser or to other applications.

Processor The processor – or central processing unit – is the brain of a computer.

PST Personal Storage Table. A file format used to store copies of messages and calendar events.

PUP Potentially Unwanted Program. A program that may not be desired, despite the user consenting to it being downloaded.

Quad core A PC that has four processors on a single chip.

RAM Random-access memory. The PC's working area, used for data storage while the PC is on.

Recovery partition A hidden portion of your hard drive where a copy of the original system configuration is stored.

Refresh rate The number of times per second (in Hz) that the image on your monitor is redrawn.

Resolution The amount of detail shown in an image.

Roaming charge Fee incurred for using your phone to receive data through overseas mobile networks.

Root access Circumventing the restrictions that are put in place by a device's operating system.

Rootkit Software that gives a malicious user administration rights and access to a computer.

SATA Serial ATA. An interface for connecting modern hard drives and optical discs to a computer.

Scart A standard connector for video and audio signals.

Server A computer on a network.

Source code Program instructions written by a programmer in a high-level language that is readable by people but not computers.

SSD Solid-state drive.

System Restore Point The collection of system files stored by System Restore on a given date and time to which Windows can revert if a problem occurs.

Travel The distance the keys of a keyboard have to be pressed before the keystroke is recognised.

USB 2.0 Faster successor to USB.

USB 3.0 An even faster version of the USB standard.

VGA Video Graphics Array.

Virtual machine A software-based computer running inside another computer.

Widget A small program that runs on the Windows Desktop.

Wiki site A collaborative website that users can easily edit.

ZIP file A file that can contain a number of compressed documents or files.

The Final Straw



STUART ANDREWS is
Computeractive's Mr Angry

This issue Stuart Andrews has no love for. . .

Dating apps

I'm usually glad that I'm no longer young, free and single. I never enjoyed the whole dating thing. I know some people find it thrilling and romantic, as you try to puzzle out what makes each other tick. But I always saw it more like a cross between a sales pitch and some unnecessarily complex parlour game – and one where I didn't understand the rules. I wouldn't want to go through dating again even were it still like that, but *now*? Forget it. In a world of dating apps I wouldn't stand a chance.

“

You can flick through
a hundred possible
partners while you're
waiting for the
kettle to boil

”

I know why people have gone mad for such things. We're all so busy these days. We work unearthly hours, then have to find time to watch all the must-watch TV, listen to the must-listen music and do all the must-do stuff. Checking and posting to our social networks is practically a full-time job, yet no matter how connected we are, and no matter where we live, meeting someone special never gets any easier, so why not let someone else handle the job?

This was where the old-fashioned online dating services came in. You filled out a profile and the service went all out to match you with someone vaguely compatible. Yes, the whole concept was flawed because our profiles never told the truth. But there was always a small

chance that the potential mate who claimed they were a keen cinephile with a love of jazz and world cuisine wasn't some sad sack who spent their weekends eating cold pizza in front of the telly – or that at the very least you had the same lies in common.

But even this kind of dating now sounds quaint. With dating app Tinder and its ilk there's no need to waste time with profiles or messages or any of that nonsense. You just flick through a stream of photos of nearby matches, then swipe them left to send them packing or right to give them the eye. If both parties swipe yes, then bingo! Tinder sets you up for a quick text chat, and anything that follows on from there.

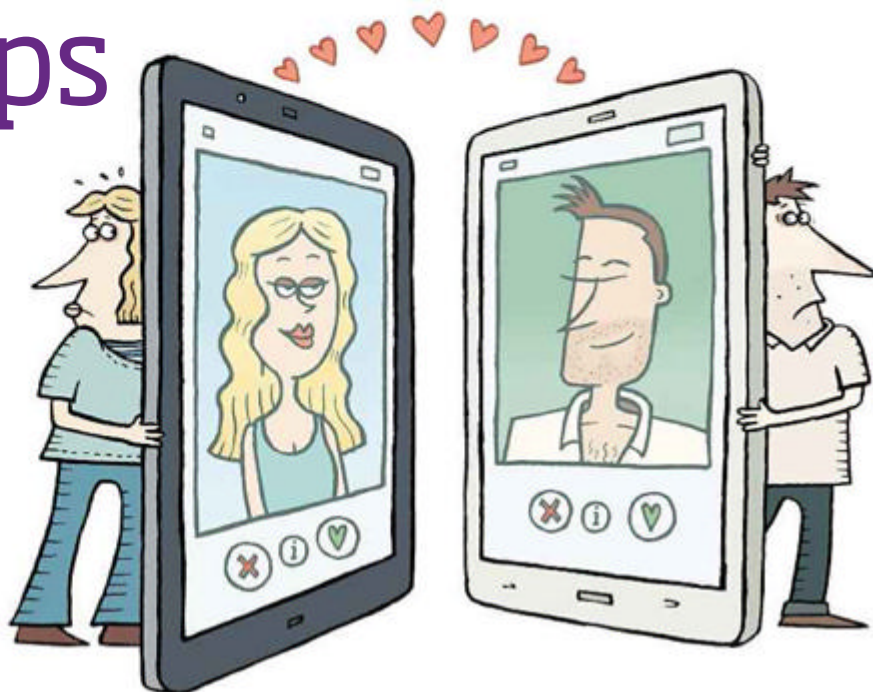
Tinder has some good points. It hooks into Facebook, so there's some proof that the girl or guy you like is roughly what they claim to be. It doesn't tell anyone else you like them unless they feel the same way about you, avoiding any potential humiliation. And it's quick and easy, letting you flick through a hundred possible partners while you're waiting for the kettle to boil. Sure it's a brutally superficial way of finding someone, but it's brutally efficient and honest too.

In fact, Tinder is so brutally honest that

it's making people aged over 28 pay £11 a month more to use the premium service than those who are 28 and under: a clear sign of which age group Tinder values most. There are other things I'm not keen on. If something this efficient at pairing people up is entirely based on looks, then it's no surprise that many of the men who use it are only after one thing.

Most of all, though, I think that Tinder and its rivals might be a bit *too* efficient. You have one photo to sell yourself, and it had better be good. No instant attraction? No date. That's probably great if you have the bone structure of a catwalk model, but it leaves little opportunity to win hearts and minds with a warm personality.

That's a lot of pressure, and I wouldn't have liked it on me. Sure, first impressions counted in the old days too, but they lasted longer than the millisecond it takes for a Tinder user to swipe you on to the scrapheap. Someone you initially found sort-of-attractive might with time (or booze) become quite the catch. There was a humanity to dating that Tinder and the like seem to have lost. Once we lose it, it might be hard to get it back.



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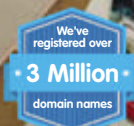
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